CITY OF LONG BEACH

DEPARTMENT OF PLANNING AND BUILDING

333 West Ocean Boulevard, 5th Floor Long Beach, CA 90802 FAX (562) 570-6753

ENVIRONMENTAL PLANNING

$25.00 FILING FEE

NOTICE OF PREPARATION

To: Office of the County Clerk
Environmental Filings
12400 E. Imperial Highway, #1101
Norwalk, CA 90650

From: Community & Environmental Planning Division
Department of Planning and Building
333 West Ocean Boulevard, 5th Floor
Long Beach, CA 90802

Date Mailed:

In conformance with Section 15082 of the State CEQA Guidelines, please post this notice for period of 20 days. Enclosed is the required fee of $25.00 for processing.

Notice is hereby given that the Long Beach City Planning Commission, Lead Agency for purposes of CEQA, proposes to adopt a Mitigated Negative Declaration for the project listed below:

1. **Project Location:**

   1630-1660 East 32nd Street

2. **Project Title:**

   Hanson Aggregates Recycling Operations

3. **Project Description:**

   Conditional Use Permit to establish a recycling center where concrete and asphalt demolition materials would be collected, stockpiled, and crushed.

4. Review period during which the Lead Agency will receive comments on the proposed mitigated Negative Declaration:

   Starting Date: November 24, 2004 Ending Date: December 15, 2004

5. Public Meeting of the Planning Commission

   Date: December 16, 2004

   Time: 1:30 p.m.

   Location: City Council Chambers
   Long Beach City Hall
   333 West Ocean Boulevard, Plaza Level

6. Copies of the report and all referenced documents are available for review by contacting the undersigned, or on the web at: www.longbeach.gov/plan/pb/epd/er.asp

7. The site is not on any list as enumerated under Section 65965.5 of the California Government Code.

8. The Initial Study may find significant adverse impacts to occur to the following resource areas:

   Aesthetics, Air Quality, Noise, Land Use/Planning, Transportation

9. The Negative Declaration has no significant impacts to occur.

For additional information contact:

Scott Mangum
Planner
333 West Ocean Boulevard, 5th Floor
Long Beach, CA 90802

AGENDA ITEM No. NEGATIVE DECLARATION

CITY OF LONG BEACH
PLANNING COMMISSION

MITIGATED NEGATIVE DECLARATION

PROJECT:

I. TITLE:

Hanson Aggregates Recycling Operations

II. PROPONENT

Warren Coalson
3511 Camino Del Rio Street, Suite 403
San Diego, CA 92163

III. DESCRIPTION

Conditional Use Permit to establish a recycling center where concrete and asphalt demolition materials would be collected, stockpiled, and crushed.

IV. LOCATION

1630-1660 East 32nd Street

V. HEARING DATE & TIME

December 16, 2004

VI. HEARING LOCATION

City Council Chambers
Long Beach City Hall
333 West Ocean Boulevard, Plaza Level

FINDING*:

In accordance with the California Environmental Quality Act, the Long Beach City Planning Commission has conducted an Initial Study to determine whether the following project may have a significant adverse effect on the environment. On the basis of that study, the Commission hereby finds that the proposed project will not have a significant adverse effect on the environment and does not require the preparation of an Environmental Impact Report because the Mitigation Measures described in the initial study have been added to the project.

Signature: _____ Date: _____

* If you wish to appeal the appropriateness or adequacy of this document, address your written comments to our finding that the project will not have a significant adverse effect on the environment: (1) identify the environmental effect(s), why they would occur, and why they would be significant, and (2) suggest any mitigation measures which you believe would eliminate or reduce the effect to an acceptable level. Regarding item (1) above, explain the basis for your comments and submit any supporting data or references.

This document and supporting attachments are provided for review by the general public. This is an information document about environmental effects only. Supplemental information is on file and may be reviewed in the office listed above. The decision making body will review this document and potentially many other sources of information before considering the proposed project.

Hanson Aggregates Recycling Operations

INITIAL STUDY

Prepared by:

City of Long Beach
Community and Environmental Planning
333 West Ocean Boulevard, Fifth Floor
Long Beach, California 90802

INITIAL STUDY

1. Project title:

Hanson Aggregates Recycling Operations

2. Lead agency name and address:

Long Beach Planning Commission
333 West Ocean Boulevard
Long Beach, CA 90802

3. Contact person and phone number:

Scott Mangum
Planner
City of Long Beach

4. Project location:

1630-1660 East 32nd Street

5. Project sponsor's name and address:

Warren Coalson
3511 Camino Del Rio Street, Suite 403
San Diego, CA 92163

6. General Plan:

LUD #9G - General Industry

7. Zoning:

General Industrial - IG

8. Description of project:

Conditional Use Permit to establish a recycling center where concrete and asphalt demolition materials would be collected, stockpiled, and crushed. Materials would be brought by truck, inspected for appropriate contents, then stockpiled for a period of time before being crushed by mobile equipment brought to the site.

A possible future second phase for the project involving an asphalt batch plant is not yet defined enough to evaluate at this time. The possible future phase is not considered in this document and may require further environmental review.

9. Surrounding land uses and setting:

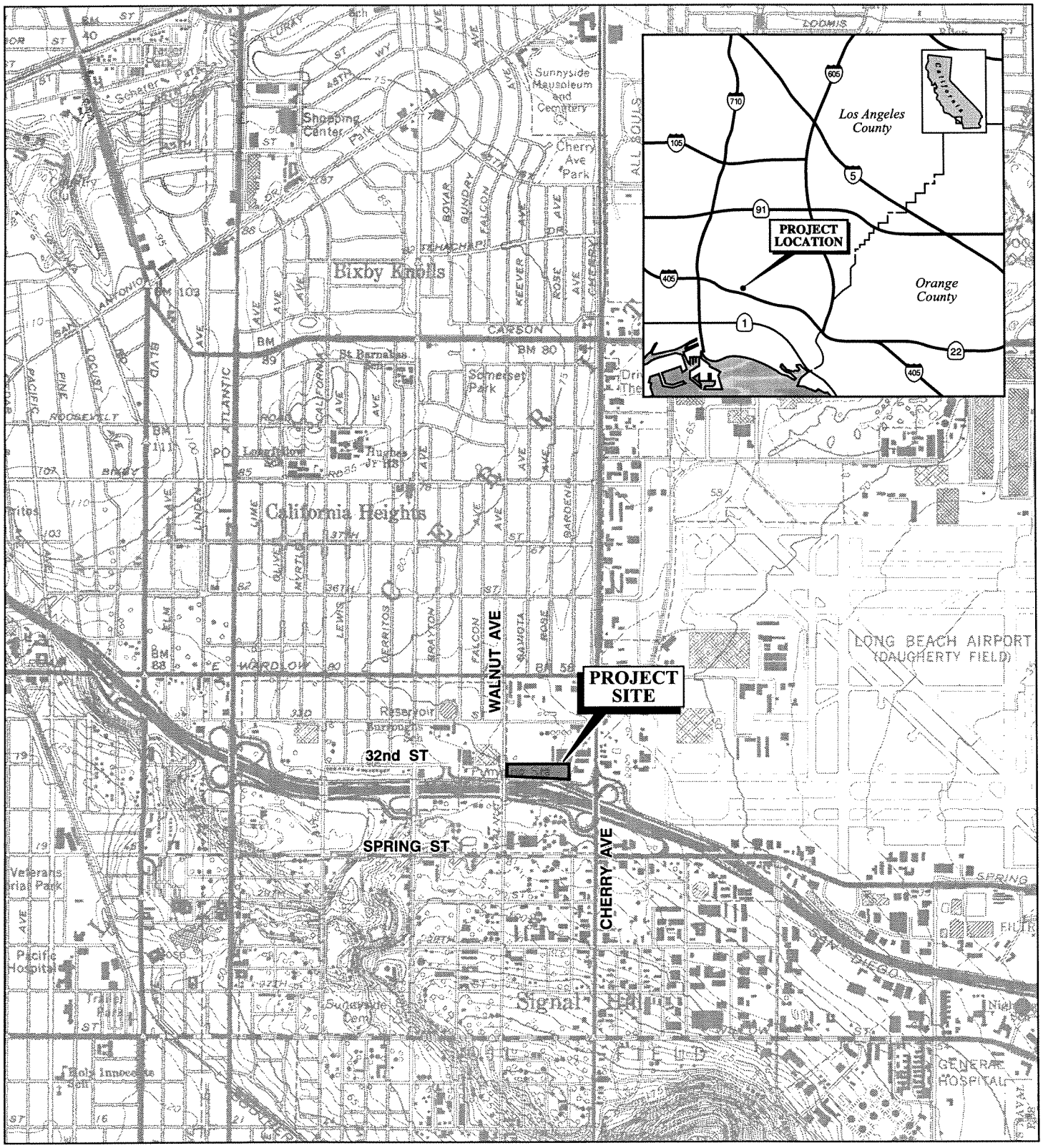
The surrounding area consist of a variety of commercial and industrial land uses.

North: Industrial, Equipment rental
West: Office/Light Industrial
South: 405 Freeway
East: Industrial

10. Other public agencies whose approval is required:

City of Long Beach Planning Commission

Long Beach City Council on appeal



LSA

FIGURE 1

N

0 1000 2000

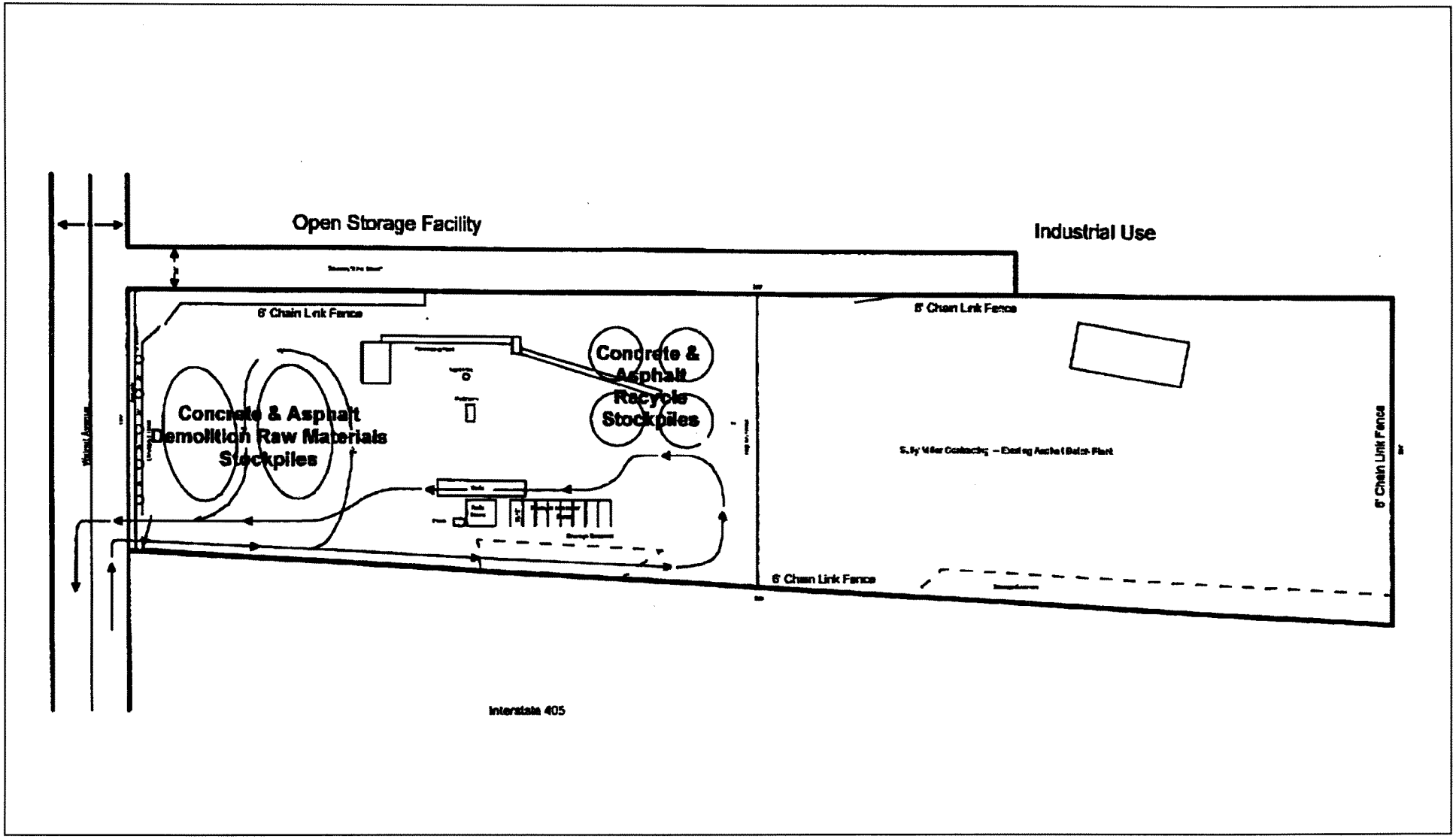
FEET

SOURCE: USGS 7.5' Quad - Long Beach, Ca.

Hanson Aggregates Long Beach

Project Location

I:\EVM430\G\Location.cdr (8/30/04)



LSA

FIGURE 2

N

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FEET

Hanson Aggregates Long Beach
Site Plan

I:\EVM430\G\Site Plan.cdr (8/30/04)

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

◆ Aesthetics	☐ Agriculture Resources	◆ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology/Soils
☐ Hazards & Hazardous Materials	☐ Hydrology/Water Quality	◆ Land Use/Planning
☐ Mineral Resources	National Pollution Discharge Elimination System	◆ Noise
☐ Population/Housing	☐ Public Services	☐ Recreation
◆ Transportation	☐ Utilities/Service Systems	☐ Mandatory Findings of Significance

DETERMINATION:

On the basis of this initial evaluation:

___ I find that the proposed project **COULD NOT** have a significant effect on the Environment and a **NEGATIVE DECLARATION** will be prepared.

✔ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. **A MITIGATED NEGATIVE DECLARATION** will be prepared.

___ I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.

___ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.

___ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

November 24, 2004

Scott Mangum
Planner

EVALUATION OF ENVIRONMENT IMPACTS:

1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parenthesis following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g. the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less than Significant with A Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration Section 1 5063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the score of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated", describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

ENVIRONMENTAL CHECKLIST

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
I. AESTHETICS – Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☑
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☑
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☑	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☑
II. AGRICULTURE RESOURCES – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☑
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☑
c) Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	☐	☐	☐	☑
III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☑	☐

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☑	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☑	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☑	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☑	☐
IV. BIOLOGICAL RESOURCES – Would the project:				
a) Have a substantial adverse impact, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U. S. Fish and Wildlife Service?	☐	☐	☐	☑
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U. S. Fish and Wildlife Service?	☐	☐	☐	☑
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☑
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☑
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☑

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☑
V. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section §15064.5?	☐	☐	☐	☑
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section §15064.5?	☐	☐	☐	☑
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☑
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☑
VI. GEOLOGY AND SOILS – Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☑	☐
ii) Strong seismic ground shaking?	☐	☐	☑	☐
iii) Seismic-related ground failure, including Liquefaction?	☐	☐	☐	☑
iv) Landslides?	☐	☐	☐	☑
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☑
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☑

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☑
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☑
VII. HAZARDS AND HAZARDOUS MATERIALS – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☑	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☑	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☑	☐
d) Be located on a site, which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☑
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☑
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☑
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☑
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☑

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
VIII. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☑	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☑	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☑	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☑	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☑	☐
f) Otherwise degrade water quality?	☐	☐	☑	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☑
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☑
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☑
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☑

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
IX. LAND USE AND PLANNING – Would the project:				
a) Physically divide an established community?	☐	☐	☐	☑
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☑	☐	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☑
X. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☑
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☑
XI. NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM – Would the project:				
a) Result in a significant loss of pervious surface?	☐	☐	☑	☐
b) Create a significant discharge of pollutants into the storm drain or water way?	☐	☐	☑	☐
c) Violate any best management practices of the National Pollution Discharge Elimination System permit?	☐	☐	☑	☐
XII. NOISE – Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☑	☐
b) Exposure of persons to or generation of excessive groundborne vibration or ground-borne noise levels?	☐	☐	☑	☐

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☑	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☑	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☑
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☑
XIII. POPULATION AND HOUSING – Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☑
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑
XIV. PUBLIC SERVICES – Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a) Fire protection?	☐	☐	☑	☐
b) Police protection?	☐	☐	☑	☐
c) Schools?	☐	☐	☐	☑
d) Parks?	☐	☐	☐	☑
e) Other public facilities?	☐	☐	☐	☑

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XV. RECREATION –				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☑
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☑
XVI. TRANSPORTATION/TRAFFIC – Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☑	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☑	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☑
d) Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☑
e) Result in inadequate emergency access?	☐	☐	☐	☑
f) Result in inadequate parking capacity?	☐	☐	☐	☑
g) Conflict with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☑
XVII. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☑

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☑	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☑	☐
d) Have sufficient water supplies available to serve the project from existing entitlement and resources, or are new or expanded entitlement needed?	☐	☐	☑	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☑	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☑
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☑	☐

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE –

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☑
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☑	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☑	☐

DISCUSSION OF ENVIRONMENTAL IMPACTS

I. AESTHETICS

EXISTING SETTING

The project site is located at the Southeast corner of Walnut Avenue and 32nd Street, north of the 405 Freeway. Immediately surrounding uses include an office park and other industrial uses. The California Heights Neighborhood is located North of 33rd street, approximately 650 feet from the project site. John Burroughs Elementary School, Recreation Park, and Long Beach Water Department represent Institutional uses in the surrounding 3 block area.

The project proposes locating a concrete and asphalt recycling use on the at the 32nd Street site. Concrete and asphalt demolition materials would be collected, stockpiled, and crushed. Materials would be brought by truck, inspected for appropriate contents, then stockpiled for a period of time before being crushed by mobile equipment brought to the site. No new structures are proposed.

A. Would the project have a substantial adverse effect on a scenic vista?

The development of the proposed site will not have an impact on scenic vistas. The Local Coastal Program of the General Plan does not identify any scenic areas where the proposed development is located.

B. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

The proposed development is located in a highly urbanized area with few natural scenic resources, with the notable exception of Pacific Ocean scenic views. The Local Coastal Program of the General Plan does not identify any scenic areas where the proposed development is located.

C. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Although the site and immediately surrounding uses are industrial, the stockpiling of cement and asphalt products has the potential to affect the existing visual character of the surrounding area. Due to the grade

of the site, locating stockpiles further from Walnut, at a lower grade would mitigate the visual impact.

Mitigation Measure:

Stockpiles should not be located within 250 feet of the Western (Walnut Street) property line.

D. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No new lighting is proposed.

II. AGRICULTURE RESOURCES

EXISTING SETTING

The project site is not located within an agricultural zone, and there are no agricultural zones within the vicinity of the project. The proposed project is located within a section of the city that has been developed for over 40 years. Development of the proposed project will have no effect on agricultural resources within the City of Long Beach or any other neighboring city or county.

The proposal will have no effect upon agriculture resources.

III. AIR QUALITY

EXISTING SETTING

The South Coast Air Basin is subject to possibly some of the worst air pollution in the country, attributable mainly to its topography, climate, meteorological conditions, a large population base, and highly dispersed urban land use patterns.

Air quality conditions are primarily affected by the rate and location of pollutant emissions and by climatic conditions that influence the movement and dispersion of pollutants. Atmospheric conditions such as wind speed, wind direction, and air temperature gradients, along with local and regional topography, provide the links between air pollutant emissions and air quality.

The South Coast Air Basin generally has a limited capability to disperse air contaminants because of its low wind speeds and persistent temperature inversions. In the Long Beach area, predominantly daily winds consist of morning onshore airflow from the southwest at a mean speed of 7.3 miles per hour and afternoon and evening offshore airflow from the northwest at 0.2 to 4.7 miles per hour with little variability between seasons. Summer wind speeds average slightly higher than winter wind speeds. The prevailing winds carry air contaminants northward and then eastward over Whittier, Covina, Pomona and Riverside.

The majority of pollutants normally found in the Los Angeles County atmosphere originate from automobile exhausts as unburned hydrocarbons, carbon monoxide, oxides of nitrogen and other materials. Of the five major pollutant types (carbon monoxide, nitrogen oxides, reactive organic gases, sulfur oxides, and particulates), only sulfur oxide emissions are dominated by sources other than automobile exhaust.

A. Would the project conflict with or obstruct implementation of the applicable Air Quality Attainment Plan?

The Southern California Association of Governments (SCAG) has determined that if a project is consistent with the growth forecasts for the subregion in which it is located, it is consistent with the Air Quality Management Plan (AQMP) and regional emissions are mitigated by the control strategy specified in the AQMP. By the year 2010, preliminary population projections by SCAG indicate that Long Beach will grown by 27,682 residents or six percent to a population of 491,092. There are no dwelling units included the proposed development, thus it is consistent with these projections.

B. Would the project violate any air quality standard or contribute to an existing or projected air quality violation?

The California Air Resources Board regulates mobile emissions and oversees the activities of county Air Pollution Control Districts (APCDs) and regional Air Quality Management Districts (AQMDs) in California. The South Coast Air Quality Management District (SCAQMD) is the regional agency empowered to regulate stationary and mobile sources in the South Coast Air Basin.

To determine whether a project generates sufficient quantities of air pollution to be considered significant, the SCAQMD adopted maximum thresholds of significance for mobile and stationary producers in the South Coast Air Basin (SCAB) (i.e., cars, trucks, buses and energy consumption). SCAQMD Conformity Procedures (Section 6.3 of the

CEQA Air Quality Handbook, April 1993) states that all government actions that generate emission greater than the following thresholds are considered regionally significant (see Table 1).

Table 1. SCAQMD Significance Thresholds

Pollutant	Construction Thresholds (lbs/day)	Operational Thresholds (lbs/day)
ROC	75	55
NO_x	100	55
CO	550	550
PM_{10}	150	150
SO_x	150	150

No new construction is proposed, thus no construction emissions relating to the project are anticipated, as shown below in Table 2.

Table 2. Construction Emissions

	ROC	NO_x	CO	PM_{10}
Exhaust Emissions	NA	NA	NA	NA
AQMD Thresholds	75	100	550	150
Exceeds Thresholds	No	No	No	No

An Air Quality Analysis prepared by LSA Associates evaluated the future on-site and off-site operations of the proposed project and concluded that the project would not exceed AQMD Thresholds (see attached pages from Air Quality Analysis).

Table 3: Operation Emissions

	ROC	NO_x	CO	PM_{10}
Exhaust Emissions	5	44	15	4
AQMD Thresholds	55	55	550	150
Exceeds Thresholds	No	No	No	No

C. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

The Federal Clean Air Act prohibits Federal agencies, or the Metropolitan Planning Organization, which is SCAG, form supporting in any way, or approving any activity that does not conform to AQMD. Therefore, if a project is consistent with the AQMD as approved by the Federal Environmental Protection Agency (EPA), the project is in "conformity" with the Federal Clean Air Act. The proposed project is consistent with the AQMD and so is in conformance with the EPA. In addition, the AQMD sets standards which reflect the California Clean Air Act. No significant impact is anticipated.

D. Would the project expose sensitive receptors to substantial pollutant concentrations?

The CEQA Air Quality Handbook defines sensitive receptors as children, athletes, elderly, and sick that are more susceptible to the effects of air pollution than the population at large. Although the project site is located approximately 750 feet from Burroughs School, the LSA Air Quality Analysis concluded that the project will not result in any air quality impact. The project is not anticipated to produce significant levels of any emission that could affect sensitive receptors.

E. Create objectionable odors affecting a substantial number of people?

The project is not anticipated to create any objectionable odors.

IV. BIOLOGICAL RESOURCES

Existing Setting:

The proposed project site is located within an urbanized portion of the city, and adjacent to commercial land uses. There is no evidence of rare or sensitive species as listed in Title 14 of the California Code of Regulations or Title 50 of the Federal Code of Regulations.

The proposed site is not located in a protected wetlands area. Also, the development of the site is not anticipated to interfere with the migratory movement of any wildlife species. The biological habitat and species

diversity is limited to the fact that typically not found in highly populated and urbanized Southern California settings.

No adverse impacts are anticipated to biological resources.

V. CULTURAL RESOURCES

There is some evidence to indicate that primitive people inhabited portions of the city as early as 5,000 to 2,000 B.C. Much of the remains and artifacts of these ancient people have been destroyed as the city has been developed. Of the archaeological sites remaining, many of them seem to be located in the southeast sector of the city.

a) Cause a substantial adverse change in the significance of a historical resource as defined in Section §15064.5?

The site is not known to be a historic resource, therefore no historic resource will be affected.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section §15064.5?

No excavation is proposed, therefore no impact is anticipated.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Please see VII (b) supra for discussion.

d) Disturb any human remains, including those interred outside of formal cemeteries?

Please see VII (b) supra for discussion.

VI. GEOLOGY AND SOILS

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

No faults are known to pass beneath the site, and the area is not in the Alquist-Priolo Special Studies Zone. The most significant fault system in the vicinity is the Newport-Inglewood fault zone. Other Potentially active faults in the area are the Richfield Fault, the Marine Stadium Fault, the Palos Verdes Fault and the Los Alamitos Fault.

ii) Strong seismic ground shaking?

The project's proximity to the Newport-Inglewood fault zone indicates the project area may be exposed to greater than normal seismic risks.

iii) Seismic-related ground failure, including Liquefaction?

The project is outside the area for a potential liquefaction based on Seismic Safety Element of the City's General Plan.

iv) Landslides?

No landslides are know to exist on the project site, nor is the area in the path of an existing or potential landslide.

b) Result in substantial soil erosion or the loss of topsoil?

Please see IV (b) supra for discussion

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

The project site is not subject to liquefaction or to landslide activity.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

The project is not known to be located on expansive soil.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater?

Sewers are available to the project.

VII. HAZARDS AND HAZARDOUS MATERIALS

A. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

The proposed concrete and asphalt recycling use accepts non-hazardous materials demolition materials from trucks, however precautions are taken to ensure that hazardous materials are not present. Signs are posted at the site entrance to inform truck drivers of acceptable import material. Trucks are stopped for inspection by plant operators. A visual inspection of the material is conducted. Plant operators check for miscellaneous trash, fuels, solvents, piping, wood, etc. Following the visual inspection, a "sniffer" inspection is done to ensure that there are no obvious smells from hazardous materials. Material that is suspected of containing hazardous products are not accepted.

With these operating procedures, the project is not anticipated to create a significant hazard to the public.

B. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Please see VII (a) supra for discussion.

C. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

The project site is located within one-quarter mile of John Burroughs Elementary School (approximately 750 ft), however, the project does not accept hazardous materials.

Please see VII (a) supra for discussion.

D. Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies and developers

to comply with the California Environmental Quality Act (CEQA) requirements in providing information about the location of hazardous materials release sites. Cortese List does not list the proposed development site as contaminated with hazardous materials. In fact, the two Long Beach sites are Ocean Boulevard and Harbor Scenic Drive and 2160 East Dominguez Street.

E. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

The proposed project site is not located within the airport land use plan or private airstrip. The boundary for the Long Beach Airport Land Use Plan is approximately 700 feet East of the Eastern property line of this site.

F. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

Please see VII (e) supra for discussion.

G. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The proposed project will not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

H. Would the project expose people or structures to a significant risk of loss, injury or death involving wild land fires, including where wild lands are adjacent to urbanized areas or where residences are intermixed with wild lands?

The proposed site is within an urbanized setting and will not expose people or structures to a significant risk of loss, injury or death involving wild land fires.

VIII. HYDROLOGY AND WATER QUALITY

The Flood Insurance Administration has prepared a new Flood Hazard Map designating potential flood zones, (Based on the projected inundation limits for breach of the Hansen Dam and that of the Whittier Narrows Dam,

as well as the 100-year flood as delineated by the U.S. Army Corps of Engineers) which was adopted in July 1998.

a) Would the project violate any water quality standards or waste discharge requirements?

Development of the proposed project will not violate wastewater discharge standards. The proposed project would comply with all state and federal requirements pertaining to preservation of water quality. The site is in an urbanized area, which is not adjacent to any major water source.

The wastewater flow originating from the proposed project will discharge in to a local (Long Beach) sewer line, for conveyance to the Los Angeles County Sanitation District treatment.

Because the project is within the SCAG projected growth, it is expected that the amount or wastewater produced can be dealt with by County Sanitation. No significant impact expected.

b) Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

The project does not involve any construction that would affect the groundwater table in the area. Project operations would not be expected to adversely affect groundwater supplies. Developments exceeding certain levels, as specified in SB 221 and SB 610, require the Water Department to make formal assessment of these matters for those specific projects. For other projects the Water Department believes it has sufficient current and planned entitlements to meet their drinking water needs.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

The project site is within a highly urbanized area with Stormwater drainage infrastructure in place. The City has a storm drain network operated and maintained by the Long Beach Public Works Department, and the Los Angeles County Department of Public

Works. The storm drain network is characterized by an extensive network of subsurface trunk lines, laterals, catch basins, and pumping stations. Some portions of the City drain naturally and do not contain storm drain infrastructure. Where infrastructure exists, the system functions to collect storm drainage and runoff for discharge into the local flood control channels. Runoff from the site is not expected to exceed the capacity of the local storm drain system.

d) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Please see VIII (b) supra for discussion.

e) Would the project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems?

Please see VIII (b) supra for discussion.

f) Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

The proposed project will not place housing within a 100-year flood hazard area. It is designated as Zone X by the FEMA FIRM maps.

g) Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

The proposed site is not within a 100-year flood hazard area.

h) Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

The proposed project is not within a zone influenced by the inundation of seiche, tsunami, or mudflow as shown in the Long Beach Seismic Element.

IX. LAND USE AND PLANNING

a) Would the project physically divide an established community?

The project site will not divide an established community because it is consistent with surrounding mix of industrial uses.

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

The General Plan designation for this site is Land Use District number 9G, general industry. The 9G district is intended to provide areas for any business to conduct legitimate industrial activities, indoors or outdoors, provided such business conducts its operations in a manner consistent with all applicable safety, environmental and zoning regulations.

The site is located in the IG (General Industrial) zoning district. Chapter 21 (Zoning Code) of the City of Long Beach Municipal Code requires a Conditional Use Permit for a concrete/asphalt recycling use within the IG zone.

Mitigation Measures:

A Conditional Use Permit shall be obtained to permit a Concrete/Asphalt recycling use in the IG zone.

c) Would the project conflict with any applicable habitat conservation plan or natural communities conservation plan?

There is no specific conservation plan for the proposed site.

X. MINERAL RESOURCES

The primary mineral resource within the City of Long Beach has been oil. From the beginning of this century, oil extraction operations within the city have diminished as this resource has become depleted due to extraction operations. Today oil extraction continues but on a much reduced scale in comparison to that which occurred in the past.

The proposed site does contain oil extraction operations, however, development is not anticipated to have a negative impact on this resource.

There are no other known mineral resources on the site that could be negatively impacted by development.

No adverse impacts are anticipated to mineral resources.

XI. National Pollution Discharge Elimination System (NPDES)

a) Result in a significant lose of pervious surface?

The proposed development does not entail the loss of any pervious surface.

b) Create a significant discharge of pollutants into the storm drain or water way?

According to the California Regional Water Quality Board, NPDES Permit #CAS004003, Water Discharge Requirements for Municipal Storm Water and Urban Runoff Discharge within the City of Long Beach, Commercial projects built with more than 100,000 square feet of impervious ground area are subject to NPDES. The site area of this project is less than 100,000 square feet of impervious area.

One of the goals of NPDES is to substantially reduce the discharge of pollutants into the storm drain systems. Although, the project contains less than 100,000 square feet of impervious surface (on the ground) it must adhere to NPDES best practices.

No significant impact is anticipated.

c) Violate any best management practices of the National Pollution Discharge Elimination System permit?

The project must comply to NPDES standards during construction and in the operational phase.

XII. NOISE

Noise is defined as unwanted sound that disturbs human activity. Environmental noise levels typically fluctuate over time, and different types of noise descriptors are used to account for this variability. Measuring noise levels involves intensity, frequency, and duration, as well as time of occurrence.

Some land uses are considered more sensitive to ambient noise levels than other uses, due to the amount of noise exposure and the types of activities involved. Residences, motels, hotels, schools, libraries, churches, nursing homes, auditoriums, parks and outdoor recreation areas are generally more sensitive to noise than are commercial and industrial land uses.

The City of Long Beach uses the State Noise/Land Use Compatibility Standards, which suggests a desirable exterior noise exposure at 65 dBA CNEL for sensitive land uses such as residences. Less sensitive commercial and industrial uses may be compatible with ambient noise levels up to 70 dBA. The City of Long Beach has an adopted Noise Ordinance that sets exterior and interior noise standards.

a) Would the project exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?

The Noise Impact Analysis, prepared by LSA Associates (see attached pages from Noise Impact Analysis), analyzed the off-site traffic impact, airport noise impact, on-site stationary sources noise impact and concluded that no mitigation measures are required.

b) Would the project exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?

The Noise Impact Analysis, prepared by LSA Associates (see attached pages from Noise Impact Analysis), analyzed the off-site traffic impact, airport noise impact, on-site stationary sources noise impact and concluded that no mitigation measures are required.

c) Would the project create a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

The Noise Impact Analysis, prepared by LSA Associates (see attached pages from Noise Impact Analysis), analyzed the off-site traffic impact, airport noise impact, on-site stationary sources noise impact and concluded that no mitigation measures are required.

d) Would the project create a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

The Noise Impact Analysis, prepared by LSA Associates (see attached pages from Noise Impact Analysis), analyzed the off-site traffic impact,

airport noise impact, on-site stationary sources noise impact and concluded that no mitigation measures are required.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The proposed development is not located within the airport land use plan. The boundary for the Long Beach Airport Land Use Plan is approximately 700 feet East of the Eastern property line of this site.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area excessive noise levels?

See discussion XI (e) supra.

XIII. POPULATION AND HOUSING

Existing Conditions:

The City of Long Beach is the second largest city in Los Angeles County and the fifth largest in California. According to the 2000 Census, Long Beach has a population of 461,522, which presents a 7.5 percent increase from the 1990 Census.

According to the 2000 Census, there were 163,088 housing units in Long Beach, with a citywide vacancy rate of 6.32 percent.

It is projected that a total population of approximately 499,705 persons will inhabit the City of Long Beach by the year 2010. The proposed project is not anticipated to have any significant impact on the population of the City of Long Beach or housing demand.

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses or indirectly (for example, thorough extension of roads or other infrastructure)?

The proposed project will not add any housing units, thus no population or housing growth would be directly associated with the project. No significant impact is anticipated.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement of housing elsewhere?

The project site is currently a vacant industrial lot: No people will be displaced.

XIV. PUBLIC SERVICES

a) Fire protection?

Fire protection is provided by the Long Beach Fire Department. The Department has 23 in-city stations. The Department is divided into Fire Prevention, Fire Suppression, Bureau of Instruction, and the Bureau of Technical Services. The Fire Department is accountable for medical, paramedic, and other first aid rescue calls from the community.

Any fire unit in the system may respond to the project locations depending on need and availability. No impacts are anticipated.

b) Police protection?

The Long Beach Police Department serves the project site. The Department is divided into Patrol, Traffic, Detective, Juvenile, Vice, Community, Jail, Records, and Administration Sections. The City has four Patrol Divisions; East, West, North and South. The project is served by the North Division, located at the intersection of Atlantic Avenue and Del Amo Boulevard. No impacts are anticipated.

c) Schools?

The proposed project will not add any permanent housing units, thus will not have an impact on schools.

d) Parks?

The proposed project will not add any permanent housing units, thus no impacts are anticipated.

d) Other public facilities?

Other public facilities are not expected to be impacted.

XV. RECREATION

Development of the proposed project is not expected to place an increased burden on the recreational facilities of the city.

A. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

See discussion supra XIV (d).

B. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The project does not include recreation facilities and will not require the construction or expansion of recreational facilities.

XVI. TRANSPORTATION/TRAFFIC

Existing Conditions:

Since 1980, Long Beach has experienced significant growth. Continued growth is expected into the next decade. Inevitably, growth will generate additional demand for travel. Without proper planning and necessary transportation improvements, this increase in travel demand, if unmanaged, could result in gridlock on freeways and streets, and jeopardize the tranquility of residential neighborhoods.

Any project that results in the degradation of an intersection to LOS E or F is considered to significantly impact that location. If an intersection is projected to operate at LOS E or F before the addition of project traffic, then the project has a significant impact if it causes the intersection volume/capacity ratio to increase by more than .02

A. Would the project cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?

A Traffic study prepared by LSA Associates (see attached pages from Transportation Analysis) evaluated the potential impact on the Level of Service at three intersections (Orange Ave. and Spring St., Walnut Ave. and Spring St., Cherry Ave. and Spring St.) along truck routes

that would be used to access the project site. The traffic study concludes that "The implementation of the proposed Hanson facility will not create or exacerbate a level of service impact at local intersections in Long Beach. No Capital circulation improvements are required to offset a project impact."

B. Would the project exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

The traffic study prepared by LSA Associates (see attached pages from Transportation Analysis) concludes that "The implementation of the proposed Hanson facility will not create or exacerbate a level of service impact at local intersections in Long Beach. No Capital circulation improvements are required to offset a project impact."

C. Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

This development is unrelated to air traffic.

D. Would the project substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The site is in an urbanized area and the streets are oriented in a grid pattern. No impact is anticipated

E. Would the project result in inadequate parking capacity?

The project will not result in inadequate parking capacity.

F. Would the project conflict with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

The proposed project will not have a significant impact on policies supporting alternative transportation.

XVII. UTILITIES AND SERVICE SYSTEMS

The proposed project is not expected to place an undue burden on any utility or service system.

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Because the project is well within SCAG forecasts of population growth in the region, the project will not exceed wastewater capacity as defined by the County Sanitation District of Los Angeles County. No significant impact is expected.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No significant impact is expected based on the discussion above.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Based on the Long Beach Storm Water Master Plan, Long Beach has adequate storm water drainage facilities to service the project.

d) Have sufficient water supplies available to serve the project from existing entitlement and resources, or are new or expanded entitlement needed?

According to the Long Beach Water Department, sufficient water supplies will be available in the next 20 years to service the project.

d) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

See discussion, supra XVI (a) and XII (a).

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Solid waste from the project operations can be disposed of at the transformation facility, SERFF, located in Long Beach. In addition, Puente Hills Landfill is located approximately 20 miles form the site and has sufficient capacity. No significant impacts are anticipated.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

As projected by the Los Angeles County, shortfall in permitted daily landfill capacity may be experienced in the County within the next few years. However, the impacts expected are less than significant.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

The proposed project is within a well-established urbanized setting; there is no anticipated negative impact to any known fish or wildlife habitat or species.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

The proposed project is not anticipated to have a cumulative considerable effect on the environment.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

There are no adverse environmental effects to human life either directly or indirectly related to the proposed project.

MITIGATION MONITORING PLAN

AESTHETICS

Measure 1: Stockpiles should not be located within 250 feet of the Western (Walnut Street) property line.

Timing: Ongoing

Enforcement Agency: Department of Planning and Building

LAND USE AND PLANNING

Measure 2: A Conditional Use Permit shall be obtained to permit a Concrete/Asphalt recycling use in the IG zone.

Timing: Prior to issuance of Building Permits

Enforcement Agency: Department of Planning and Building

AIR QUALITY ANALYSIS

HANSON AGGREGATES CONCRETE/ASPHALT RECYCLE PLANT

CITY OF LONG BEACH, CALIFORNIA

Submitted to:

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LSA Project No. EVM430

LSA

November 10, 2004

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INTRODUCTION

This report has been prepared to evaluate potential air quality impacts and mitigation measures associated with the proposed concrete and asphalt recycling and crushing operations at a 4.3-acre parcel located at the southeast corner of 32nd Street and Walnut Avenue in the City of Long Beach, California (City). The air quality study provides a discussion of the proposed project, the physical setting of the project area, and the regulatory framework for air quality. The analysis provides data on existing air quality, evaluates potential air quality impacts associated with the proposed project, and identifies mitigation measures recommended for potentially significant impacts. Modeled air quality levels are based upon vehicle data and project trip generation included in a traffic study prepared for the proposed project (LSA Associates, Inc. [LSA], September 2004).

The evaluation was prepared in conformance with appropriate standards, utilizing procedures and methodologies in the South Coast Air Quality Management District (SCAQMD) *CEQA* [California Environmental Quality Act] *Air Quality Handbook* (SCAQMD, April 1993).

Project Location

The proposed project site is located in the City of Long Beach. Comprising 4.3 acres, the proposed project site is owned by Hanson Aggregates (Hanson) and is located at the southeast corner of 32nd Street and Walnut Avenue north of the Interstate 405 (I-405) Freeway. This site is approximately one mile to the northeast of the existing Hanson site south of the I-405. Figure 1 shows the project location.

Access to the site is gained from Interstate 405 and Cherry Avenue. Truck traffic travels south on Cherry Avenue to Spring Street, west on Spring Street to Walnut Avenue, then north on Walnut Avenue to the entrance to the site.

The nearest sensitive uses are residences approximately 650 feet from the project site along Walnut Avenue and 33rd Street. Burroughs Elementary School along 33rd Street is approximately 750 feet from the project site.

Project Site Existing Setting

The parcel is zoned General Industrial and a portion of the site is currently used for Hot Mix Asphalt (HMA) manufacturing and the recycling of recycled asphalt products (RAP). This activity is undertaken by Sully-Miller Contracting through a lease from Hanson.

Project Characteristics

In addition to the HMA and RAP processing that occurs at the site, Hanson wishes to utilize a portion of the site for the collection and recycling of concrete and asphalt demolition materials. Figure 2 is a

Figure 1: Project Location Map

Figure 2: Site Plan

site plan for the proposed project. The site plan identifies the location of HMA/RAP operations and the proposed construction debris recycling operations.

Hanson currently operates a recycling center for concrete and asphalt demolition materials located at the intersection of California Avenue and Spring Street south of the I-405 Freeway. This site is located on City property. Hanson has been asked by the City of Long Beach to move their current recycling operations from City property to enable the construction of a recreation facility. Hanson would like to utilize the subject property to include concrete recycling and crushing in addition to current asphalt production.

Hanson proposes to utilize about half of the subject site as a recycling center for concrete and asphalt demolition materials. These activities would occur on the western portion of the site. The process of recycling concrete and asphalt demolition materials is similar to the processing requirements for RAP.

For use of the subject property as a recycling center, concrete and asphalt demolition materials will be imported to the site at 20 to 40 truck trips per day. Concrete and asphalt demolition materials are normally composed of broken pieces of concrete or asphalt materials. The sizes of the broken pieces range from a few inches to about three feet in diameter. This material will be stockpiled over an 8-to-12-week period until approximately 5,000 to 8,000 cubic yards of materials are available for processing. A portable processing plant is then brought to the site to crush, screen, and stockpile the processed products. The crushed product is then suitable for use as CMB or Class 2 Base product. The final products are sold to a variety of local end users, including the City of Long Beach.

Equipment used for the recycling operations include the existing office and truck scale, two front-end loaders (Cat 966 or equivalent) and periodic use of a portable processing plant. The portable processing plant consists of a portable rock crusher, aggregate screen, and material stacker. The portable processing plant is equipped with dust control equipment to meet air quality permit requirements.

Hanson's recycle operations are very important for the City of Long Beach for a variety of reasons. There are currently only two other concrete and asphalt demolition material recycling facilities operating in the City. As a result, demolition materials originating in the City and surrounding areas will need to be disposed of in a landfill or hauled substantial distances to recycling facilities in other cities (note: outside the City of Long Beach, the closest recycling facility is located in the City of Carson).

Relocation of the recycle operations to the Walnut Avenue site will result in essentially the same type of land use that currently occurs at this site. Processing of RAP is no different than the processing of concrete and asphalt products and, where RAP is used for road base, the use is identical.

Methodology Related to Air Quality Impact Assessment

Evaluation of air quality impacts associated with a proposed project typically includes the following:

- Determine the short-term construction air quality impacts on off-site air quality-sensitive uses

- Determine the long-term air quality impacts, including vehicular traffic and on-site operations, on off-site air quality-sensitive uses
- Determine mitigation measures required to reduce long-term air quality impacts from all sources

EXISTING ENVIRONMENTAL SETTING

The project site is located within the City of Long Beach, which is part of the South Coast Air Basin (Basin) and is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The air quality assessment for the proposed project includes estimating emissions associated with both short-term construction and long-term operation of the proposed project.

A number of air quality modeling tools is available to assess project-related air quality impacts. Moreover, certain air districts, such as the SCAQMD, have created guidelines and requirements for air quality analyses. The SCAQMD's current guidelines, included in its CEQA Air Quality Handbook (April 1993), were adhered to in the assessment of air quality impacts for the proposed project.

Regional Air Quality

Both the State of California and the federal government have established health-based ambient air quality standards (AAQS) for six air pollutants. As shown in Table A, these pollutants include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter with a diameter of 10 microns or less (PM_{10}), and lead. In July 1997, the U.S. Environmental Protection Agency (EPA) adopted new standards for eight-hour ozone and for fine particulate matter less than 2.5 microns in diameter ($PM_{2.5}$). In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

In addition to setting out primary and secondary AAQS, the State of California has established a set of episode criteria for O_3, CO, NO_2, SO_2, and PM_{10}. These criteria refer to episode levels representing periods of short-term exposure to air pollutants that actually threaten public health. Health effects are progressively more severe as pollutant levels increase from Stage One to Stage Three. Table B lists the health effects of these criteria pollutants and their potential sources. These health effects will not occur unless the standards are exceeded by a large margin or for a prolonged period of time. State AAQS are more stringent than federal AAQS.

The California Clean Air Act (CCAA) provides the SCAQMD with the authority to manage transportation activities at indirect sources. Indirect sources of pollution are generated when minor sources collectively emit a substantial amount of pollution. Examples of this are the motor vehicles at an intersection, a mall, and on highways. The SCAQMD also regulates stationary sources of pollution throughout its jurisdictional area. Direct emissions from motor vehicles are regulated by the California Air Resources Board (ARB).

Table A: Ambient Air Quality Standards (AAQS)

Pollutant	Averaging Time	California Standards[1]		Federal Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone (O_3)	1-Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	0.12 ppm (235 µg/m^3)[8]	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	--		0.08 ppm (157 µg/m^3)[8]		
Respirable Particulate Matter (PM_{10})	24-Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		50 µg/m^3		
Fine Particulate Matter ($PM_{2.5}$)	24-Hour	No Separate State Standard		65 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	15 µg/m^3		
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m^3)	None	Non-Dispersive Infrared Photometry (NDIR)
	1-Hour	20 ppm (23 mg/m^3)		35 ppm (40 mg/m^3)		
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		--	--	--
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	--	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m^3)	Same as Primary Standard	Gas Phase Chemiluminescence
	1-Hour	0.25 ppm (470 µg/m^3)		--		
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	--	Ultraviolet Fluorescence	0.030 ppm (80 µg/m^3)	--	Spectrophotometry (Pararosaniline Method)
	24-Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (365 µg/m^3)	--	
	3-Hour	--		--	0.5 ppm (1300 µg/m^3)	
	1-Hour	0.25 ppm (655 µg/m^3)		--	--	
Lead[9]	30 Day Average	1.5 µg/m^3	Atomic Absorption	--	--	High Volume Sampler and Atomic Absorption
	Calendar Quarter	--		1.5 µg/m^3	Same as Primary Standard	
Visibility-Reducing Particles	8-Hour	Extinction coefficient of 0.23 per kilometer - visibility of ten miles or more (0.07-30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.		**No Federal Standards**		
Sulfates	24-Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Cloride[9]	24-Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

Source: ARB (July 2003).

Footnotes:

1 California standards for ozone; carbon monoxide (except Lake Tahoe); sulfur dioxide (1 and 24 hour); nitrogen dioxide; suspended particulate matter, PM_{10}; and visibility reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2 National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies.

3 Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25˚C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25˚C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4 Any equivalent procedure that can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5 National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6 National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7 Reference method as described by the EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the EPA.

8 New federal eight-hour ozone and fine particulate matter standards were promulgated by U.S. EPA on July 18, 1997. Contact U.S. EPA for further clarification and current federal policies.

9 The ARB has identified lead and vinyl chloride as ‘toxic air contaminants’ with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

Table B: Summary of Health Effects of the Major Criteria Air Pollutants

Pollutants	Sources	Primary Effects
Ozone (O_3)	Atmospheric reaction of organic gases with nitrogen oxides in the presence of sunlight.	Aggravation of respiratory and cardiovascular diseases. Irritation of eyes. Impairment of cardiopulmonary function. Plant leaf injury.
Nitrogen Dioxide (NO_2)	Motor vehicle exhaust. High temperature stationary combustion. Atmospheric reactions.	Aggravation of respiratory illness. Reduced visibility. Reduced plant growth. Formation of acid rain.
Carbon Monoxide (CO)	By-products from incomplete combustion of fuels and other carbon containing substances, such as motor exhaust. Natural events, such as decomposition of organic matter.	Reduced tolerance for exercise. Impairment of mental function. Impairment of fetal development. Death at high levels of exposure. Aggravation of some heart diseases (angina).
Suspended Particulate Matter ($PM_{2.5}$ and PM_{10})	Stationary combustion of solid fuels. Construction activities. Industrial processes. Atmospheric chemical reactions.	Reduced lung function. Aggravation of the effects of gaseous pollutants. Aggravation of respiratory and cardiorespiratory diseases. Increased cough and chest discomfort. Soiling. Reduced visibility.
Sulfur Dioxide (SO_2)	Combustion of sulfur-containing fossil fuels. Smelting of sulfur-bearing metal ores. Industrial processes.	Aggravation of respiratory diseases (asthma, emphysema). Reduced lung function. Irritation of eyes. Reduced visibility. Plant injury. Deterioration of metals, textiles, leather, finishes, coatings, etc.
Lead (Pb)	Contaminated soil (e.g., from leaded fuels and lead-based paints).	Impairment of blood function and nerve construction. Behavioral and hearing problems in children.

Source: ARB 2001.

Climate/Meteorology. Air quality in the planning area is not only affected by various emission sources (mobile, industry, etc.) but by atmospheric conditions like wind speed, wind direction, temperature, and rainfall. The combination of topography, low mixing height, abundant sunshine, and emissions from the second largest urban area in the United States gives the Basin the worst air pollution problem in the nation.

Climate in the Basin is determined by its terrain and geographical location. The Basin is a coastal plain with connecting broad valleys and low hills. The Pacific Ocean forms the southwestern border, and high mountains surround the rest of the Basin. The Basin lies in the semi-permanent high-pressure zone of the eastern Pacific; the resulting climate is mild and tempered by cool ocean breezes. This climatological pattern is rarely interrupted. However, periods of extremely hot weather, winter storms and Santa Ana wind conditions do occur.

The annual average temperature varies little throughout the Basin, ranging from the low to middle 60s, measured in degrees Fahrenheit. With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The climatological station closest to the site is the Long Beach Station.[1] The monthly average maximum temperature recorded at this station from April 1958 to July 2003 ranged from 66.9°F in January to 84.1°F in August, with an annual average maximum of 74.3°F. The monthly average minimum temperature recorded at this station ranged from 45.5°F in January to 64.9°F in August, with an annual average minimum of 54.7°F. January is typically the coldest month, and August is typically the warmest month in this area of the Basin.

Most rainfall in the Basin occurs between November and April. Summer rainfall is minimal and is generally limited to scattered thundershowers in coastal regions and slightly heavier showers in the eastern portion of the Basin and along the coastal side of the mountains. The Long Beach climatological station monitored precipitation from April 1958 to July 2003. Average monthly rainfall during that period varied from 2.85 inches in February to 0.29 inch or less between May and October, with an annual total of 11.97 inches. Patterns in monthly and yearly rainfall totals are unpredictable due to fluctuations in the weather.

Although the Basin has a semiarid climate, air near the surface is generally moist because of the presence of a shallow marine layer. With very low average wind speeds, there is a limited capacity to disperse air contaminants horizontally. The dominant daily wind pattern is an onshore 8 to 12 miles per hour (mph) daytime breeze and an offshore 3 to 5 mph nighttime breeze. The typical wind flow pattern fluctuates only with occasional winter storms or strong northeasterly (Santa Ana) winds from the mountains and deserts northeast of the Basin. Summer wind flow patterns represent worst-case conditions, because this is the period of higher temperatures and more sunlight, which results in the formation of ozone.

Winds in the Long Beach area are almost always driven by the dominant land/sea breeze circulation system. Regional wind patterns are dominated by daytime onshore sea breezes. At night, the wind generally slows and reverses direction, traveling towards the sea. Wind direction is altered by local canyons, with wind tending to flow parallel to the canyons. During the transition period from one

[1] Western Regional Climate Center, www.wrcc.dri.edu.

wind pattern to another, the dominant wind direction rotates to the south and causes a minor wind direction maximum from the south. The frequency of calm winds (i.e., less than two miles per hour) is less than 10 percent. Therefore, there is little stagnation in the vicinity of the project, especially during busy daytime traffic hours.

During spring and early summer, pollution produced during any one day is typically blown out of the Basin through mountain passes or lifted by warm, vertical currents adjacent to mountain slopes. Air contaminants can be transported 60 miles or more from the Basin by ocean air during the afternoons. From early fall to winter, the transport is less pronounced because of slower average wind speed and the appearance of drainage winds earlier in the day. During stagnant wind conditions, offshore drainage winds may begin by late afternoon. Pollutants remaining in the Basin are trapped and begin to accumulate during the night and the following morning. A low morning wind speed in pollutant source areas is an important indicator of air stagnation and the potential for buildup of primary air contaminants.

Temperature normally decreases with altitude, and a reversal of this atmospheric state, where temperature increases with altitude, is called an inversion. The height from the Earth to the inversion base is known as the mixing height. Persistent low inversions and cool coastal air tend to create morning fog and low stratus clouds. Cloudy days are less likely in the eastern portions of the Basin and are about 25 percent more likely along the coast. The vertical dispersion of air pollutants in the Basin is limited by temperature inversions in the atmosphere close to the Earth's surface.

Inversions are generally lower in the nighttime, when the ground is cool, than during daylight hours when the sun warms the ground and, in turn, the surface air layer. As this heating process continues, the temperature of the surface air layer approaches the temperature of the inversion base, causing heating along its lower edge. If enough warming takes place, the inversion layer becomes weak and opens up to allow the surface air layers to mix upward. This can be seen in the middle to late afternoon on a hot summer day when the smog appears to clear up suddenly. Winter inversions typically break earlier in the day, preventing excessive contaminant buildup.

The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. On days of no inversion or high wind speeds, ambient air pollutant concentrations are lowest. During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas are transported predominantly onshore into Riverside and San Bernardino Counties. In the winter, the greatest pollution problem is accumulation of CO and NO_X due to extremely low inversions and air stagnation during the night and early morning hours. In the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons and NO_X to form photochemical smog.

Air Pollution Constituents and Attainment Status. The following describes the criteria air pollutants and their attainment status in the Basin based on ARB's Area Designations (Activities and Maps) (http://www.arb.ca.gov/desig/desig.htm). ARB provided U.S. EPA with California's recommendations for eight-hour ozone area designations on July 15, 2003. The recommendations and supporting data were an update to a report submitted to U.S. EPA in July 2000. On December 3, 2003, U.S. EPA published its proposed designations. U.S. EPA's proposal differs from the State's recommendations primarily on the appropriate boundaries for several nonattainment areas. ARB

responded to U.S. EPA's proposal on February 4, 2004. U.S. EPA finalized the eight-hour ozone designations in April 2004. Table C summarizes the attainment status in the Basin for the major criteria pollutants.

Table C: Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
O_3 1-hour	Nonattainment	Extreme Nonattainment
O_3 8-hour	No State standard	Severe-17 Nonattainment
PM_{10}	Nonattainment	Serious Nonattainment
$PM_{2.5}$	Not Established	Not Established (due in 12/04)
CO	Attainment (except Los Angeles County)	Attainment (based on 2003 AQMP for the Basin)
NO_2	Attainment	Attainment/Maintenance
SO_2	Attainment	Attainment
Lead	Attainment	Attainment
All others	Attainment/Unclassified	Attainment/Unclassified

Source: ARB 2004.

Ozone. O_3 (smog) is formed by photochemical reactions between NO_X and reactive organic gases (ROG) rather than being directly emitted. O_3 is a pungent, colorless gas typical of Southern California smog. Elevated O_3 concentrations result in reduced lung function, particularly during vigorous physical activity. This health problem is particularly acute in sensitive receptors such as the sick, the elderly, and young children. O_3 levels peak during summer and early fall. The entire Basin is designated a nonattainment area for both federal and State one-hour O_3 standards. The EPA has classified the Basin as an "extreme" nonattainment area for the one-hour O_3 standard and has mandated that the Basin achieve attainment by 2010. The EPA has designated the Basin as Severe-17 for the eight-hour O_3 standard. This means that a 17-year deadline has been placed on achieving attainment status.

Carbon Monoxide. CO is formed by the incomplete combustion of fossil fuels, almost entirely from automobiles. It is a colorless, odorless gas that can cause dizziness, fatigue, and impairments to central nervous system functions. The entire Basin is designated a serious nonattainment area for federal CO standards. The Los Angeles County portion of the SCAQMD district (this includes Long Beach) has been designated by the ARB to be a nonattainment/transitional area for State CO standards.

Nitrogen Oxides. NO_2, a reddish brown gas, and nitric oxide (NO), a colorless, odorless gas, are formed from fuel combustion under high temperature or pressure. These compounds are referred to as nitrogen oxides, or NO_X. NO_X is a primary component of the photochemical smog reaction. It also

contributes to other pollution problems, including a high concentration of fine particulate matter, poor visibility, and acid deposition (i.e., acid rain). NO_2 decreases lung function and may reduce resistance to infection. The entire Basin has not exceeded both federal and State standards for NO_2 in the past five years with published monitoring data. It is designated a maintenance area under federal standards and an attainment area under State standards.

Sulfur Dioxide. SO_2 is a colorless, irritating gas formed primarily from incomplete combustion of fuels containing sulfur. Industrial facilities also contribute to gaseous SO_2 levels. SO_2 irritates the respiratory tract, can injure lung tissue when combined with fine particulate matter, and reduces visibility and the level of sunlight. The entire Basin is in attainment with both federal and State SO_2 standards.

Lead. Lead is found in old paints and coatings, plumbing, and a variety of other materials. Once in the bloodstream, lead can cause damage to the brain, nervous system, and other body systems. Children are highly susceptible to the effects of lead. The entire Basin is in attainment for federal and State lead standards.

Particulate Matter. Particulate matter is the term used for a mixture of solid particles and liquid droplets found in the air. Coarse particles, PM_{10}, derive from a variety of sources, including windblown dust and grinding operations. Fuel combustion and resultant exhaust from power plants and diesel buses and trucks are primarily responsible for fine particle, $PM_{2.5}$, levels. Fine particles can also be formed in the atmosphere through chemical reactions. PM_{10} can accumulate in the respiratory system and aggravate health problems such as asthma. The EPA's scientific review concluded that $PM_{2.5}$, which penetrates deeply into the lungs, is more likely than PM_{10} to contribute to the health effects listed in a number of recently published community epidemiological studies at concentrations that extend well below those allowed by current PM_{10} standards. These health effects include premature death and increased hospital admissions and emergency room visits (primarily the elderly and individuals with cardiopulmonary disease); increased respiratory symptoms and disease (children and individuals with cardiopulmonary disease such as asthma); decreased lung functions (particularly in children and individuals with asthma); and alterations in lung tissue and structure and in respiratory tract defense mechanisms. The entire Basin is a nonattainment area for federal and State PM_{10} standards. The attainment status of $PM_{2.5}$ in the Basin was not officially established by the EPA or the ARB at the time this analysis was prepared. However, based on the monitored data, the Basin is likely to be designated a nonattainment area for $PM_{2.5}$.

Local Air Quality

The SCAQMD, together with the ARB, maintains ambient air quality monitoring stations in the Basin. The air quality monitoring station closest to the site is the North Long Beach station, and its air quality trends are representative of the ambient air quality in the project area. The pollutants monitored are CO, O_3, PM_{10}, $PM_{2.5}$, NO_2, and SO_2.[2]

[2] Air quality data, 1999–2003; EPA and ARB Web sites.

The ambient air quality data in Table D show that NO_2, SO_2, and CO levels are below relevant State and federal standards at the North Long Beach station. The federal one-hour O_3 standard was exceeded one day in the past five years and the State standard from zero to three days in each of the past five years. The federal eight-hour O_3 standard has not been exceeded since 1994. The State 24-hour PM_{10} standard was exceeded from five to 13 days in each of the past five years but has not exceeded the federal 24-hour standard since 1984. The federal 24-hour $PM_{2.5}$ standard has not been exceeded for the past two years and in prior years was exceeded from one to four days each year. Both State and federal annual average $PM_{2.5}$ standards have been exceeded every year since monitoring began in 1999.

Regulatory Settings

Federal Regulations/Standards. Pursuant to the federal Clean Air Act (CAA) of 1970, the EPA established national ambient air quality standards (NAAQS) for six major pollutants, termed "criteria" pollutants. Criteria pollutants are defined as those pollutants for which the federal and State governments have established AAQS, or criteria, for outdoor concentrations in order to protect public health.

Data collected at permanent monitoring stations are used by the EPA to classify regions as "attainment" or "nonattainment," depending on whether the regions met the requirements stated in the primary NAAQS. Nonattainment areas have additional restrictions as required by the EPA.

The EPA has designated the Southern California Association of Governments (SCAG) as the Metropolitan Planning Organization (MPO) responsible for ensuring the Basin's compliance with the CAA.

The EPA established new national air quality standards for ground-level O_3 and $PM_{2.5}$ matter in 1997. On May 14, 1999, the Court of Appeals for the District of Columbia Circuit issued a decision ruling that the CAA, as applied in setting the new public health standards for O_3 and particulate matter, was unconstitutional as an improper delegation of legislative authority to the EPA. On February 27, 2001, the U.S. Supreme Court upheld the way the government sets air quality standards under the CAA. The court unanimously rejected industry arguments that the EPA must consider financial cost as well as health benefits in writing standards. The justices also rejected arguments that the EPA took lawmaking power from Congress when it set tougher standards for O_3 and particulate matter in 1997. Nevertheless, the court threw out the EPA's policy for implementing new O_3 rules, saying that the agency ignored a section of the law that restricts its authority to enforce such rules.

In April 2003, the EPA was cleared by the White House Office of Management and Budget (OMB) to implement the eight-hour ground-level O_3 standard. The EPA issued the proposed rule implementing the eight-hour O_3 standard in April 2003. The EPA completed final eight-hour nonattainment status on April 15, 2004. The EPA plans to issue the final $PM_{2.5}$ implementation rule in September 2004. The EPA is then expected to make final designations on December 15, 2004.

Table D: Ambient Air Quality at the North Long Beach Air Monitoring Station

Pollutant	Standard	2003	2002	2001	2000	1999
Carbon Monoxide						
Max 1-hr concentration (ppm)		5.5	5.8	6.0	9.7	7.5
No. days exceeded: State	> 20 ppm/1-hr	0	0	0	0	0
Federal	> 35 ppm/1-hr	0	0	0	0	0
Max 8-hr concentration (ppm)		4.7	4.6	4.7	5.7	5.5
No. days exceeded: State	∃ 9.0 ppm/8-hr	0	0	0	0	0
Federal	∃ 9 ppm/8-hr	0	0	0	0	0
Ozone						
Max 1-hr concentration (ppm)		0.099	0.084	0.091	0.188	0.131
No. days exceeded: State	> 0.09 ppm/1-hr	1	0	0	3	3
Federal	> 0.12 ppm/1-hr	0	0	0	0	1
Max 8-hr concentration (ppm)		0.068	0.064	0.070	0.081	0.081
No. days exceeded: Federal	> 0.08 ppm/8-hr	0	0	0	0	0
Particulates (PM_{10})						
Max 24-hr concentration ($\Phi g/m^3$)		63	74	91	105	79
No. days exceeded: State	> 50 $\Phi g/m^3$/24-hr	10	5	10	12	13
Federal	> 150 $\Phi g/m^3$/24-hr	0	0	0	0	0
Annual Arithmetic Average ($\Phi g/m^3$)		34	36	37	38	39
Exceeded: State	> 20 $\Phi g/m^3$ ann. arth. avg.	Yes	Yes	Yes	Yes	Yes
Federal	> 50 $\Phi g/m^3$ ann. arth. avg.	No	No	No	No	No
Particulates ($PM_{2.5}$)						
Max 24-hr concentration ($\Phi g/m^3$)		46.5	62.7	72.9	81.5	66.9
No. days exceeded: Federal	> 65 $\Phi g/m^3$/24-hr	0	0	1	4	1
Annual Arithmetic Average ($\Phi g/m^3$)		15.5	19.5	21.2	19.6	20.7
Exceeded: State	> 12 $\Phi g/m^3$ ann. arth. avg.	Yes	Yes	Yes	Yes	Yes
Federal	> 15 $\Phi g/m^3$ ann. arth. avg.	Yes	Yes	Yes	Yes	Yes
Nitrogen Dioxide						
Max 1-hr concentration (ppm)		0.135	0.130	0.122	0.140	0.151
No. days exceeded: State	> 0.25 ppm/1-hr	0	0	0	0	0
Annual arithmetic average concentration (ppm)		0.026	0.029	0.030	0.032	0.034
Exceeded: Federal	> 0.053 ppm ann. arth. avg.	No	No	No	No	No
Sulfur Dioxide						
Max 1-hr concentration (ppm)		0.033	0.030	0.047	0.047	0.050
No. days exceeded: State	> 0.25 ppm/1-hr	0	0	0	0	0
Max 3-hr concentration (ppm)		0.020	0.026	0.027	0.036	0.030
No. days exceeded: Federal	> 0.5 ppm/3-hr	0	0	0	0	0
Max 24-hr concentration (ppm)		0.008	0.008	0.009	0.011	0.011
No. days exceeded: State	> 0.04 ppm/24-hr	0	0	0	0	0
Federal	> 0.14 ppm/24-hr	0	0	0	0	0
Annual arithmetic average concentration (ppm)		0.003	0.002	0.003	0.003	0.004
Exceeded: Federal	> 0.030 ppm ann. arth. avg.	No	No	No	No	No

Source: EPA and ARB 1999 to 2003.
ppm = parts per million
$\Phi g/m^3$ = microgram of pollutant per cubic meter of air

State Regulations/Standards. The State of California began to set California ambient air quality standards (CAAQS) in 1969 under the mandate of the Mulford-Carrell Act. The CAAQS are generally more stringent than the NAAQS. In addition to the six criteria pollutants covered by the NAAQS, there are CAAQS for sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles. These standards are also listed in Table A.

Originally, there were no attainment deadlines for CAAQS. However, the CCAA of 1988 provided a time frame and a planning structure to promote their attainment. The CCAA required nonattainment areas in the State to prepare attainment plans and proposed to classify each such area on the basis of the submitted plan, as follows: moderate, if CAAQS attainment could not occur before December 31, 1994; serious, if CAAQS attainment could not occur before December 31, 1997; and severe, if CAAQS attainment could not be conclusively demonstrated at all.

The attainment plans are required to achieve a minimum 5 percent annual reduction in the emissions of nonattainment pollutants unless all feasible measures have been implemented. The Basin is currently classified a nonattainment area for four criteria pollutants.

Regional Air Quality Planning Framework. The 1976 Lewis Air Quality Management Act established the SCAQMD and other air districts throughout the State. The federal CAA Amendments of 1977 required that each state adopt an implementation plan outlining pollution control measures to attain the federal standards in nonattainment areas of the state.

The ARB coordinates and oversees both State and federal air pollution control programs in California. It oversees activities of local air quality management agencies and is responsible for incorporating air quality management plans for local air basins into a State Implementation Plan (SIP) for EPA approval. The ARB maintains air quality monitoring stations throughout the State in conjunction with local air districts. Data collected at these stations are used by the ARB to classify air basins as “attainment” or “nonattainment” with respect to each pollutant and to monitor progress in attaining air quality standards. The ARB has divided the State into 15 air basins. Significant authority for air quality control within them has been given to local air districts that regulate stationary source emissions and develop local nonattainment plans.

Regional Air Quality Management Plan. The SCAQMD and the SCAG are responsible for formulating and implementing the Air Quality Management Plan (AQMP) for the Basin. Regional AQMPs were adopted for the Basin for 1979, 1982, 1989, 1991, 1994, and 1997. Compliance with the provisions of the CAA and the CCAA is the primary focus of the AQMP developed by the SCAQMD and the SCAG.

The SCAQMD governing board approved the 1997 AQMP on November 15, 1996. After approval, the AQMP was submitted to the ARB for its review and approval. The ARB approved the O_3 and PM_{10} portions of the 1997 AQMP on January 23, 1997, and submitted the plan to the EPA as proposed revisions to the SIP. The EPA rejected the District’s revision of its 1997 AQMP in January 1999. The rejection, however, covers only the provisions of the AQMP designed to attain the federal O_3 standard. Separate parts of the 1997 AQMP relating to CO and NO_2 have previously been approved, and the EPA has yet to act on that portion of the 1997 AQMP related to PM_{10}. As a result

of the rejection, SCAQMD prepared a draft "Proposed 1999 Amendment to the 1997 Ozone SIP Revision for the South Coast Air Basin" on October 7, 1999, for public review and comment. The 1999 Amendment proposed to revise the O_3 portion of the 1997 AQMP submitted to the EPA as a revision to the Basin portion of the 1994 California Ozone SIP. The SCAQMD governing board adopted the "1999 Amendment to the 1997 Ozone SIP Revision for the South Coast Air Basin" on December 10, 1999. The EPA approved the 1999 Amendment for O_3 in 2001, and currently there is no approved SIP for CO and PM_{10}. In addition, the SCAQMD governing board settled with three environmental organizations on its litigation of the 1994 Ozone SIP.

The SCAQMD adopted a comprehensive plan update for the Basin on August 1, 2003 (the 2003 AQMP), which seeks to demonstrate attainment with State and federal air quality standards and will incorporate a revised emissions inventory, the latest modeling techniques, and updated control measures remaining from the 1997/1999 SIP and new control measures. The SCAQMD submitted the 2003 AQMP to the ARB and EPA for their review and approval in early August 2003. The ARB approved the 2003 AQMP in October 2003 with minor modifications. The ARB forwarded its modifications to the EPA for approval in late October 2003.

THRESHOLDS OF SIGNIFICANCE

A project would normally be considered to have a significant effect on air quality if it would violate any AAQS, contribute substantially to an existing air quality violation, expose sensitive receptors to substantial pollutants concentrations, or conflict with adopted environmental plans and goals of the community in which it is located.

In addition to the federal and State AAQS, there are daily and quarterly emissions thresholds for construction and operation of a proposed project in the Basin. The Basin is administered by the SCAQMD, and guidelines and emissions thresholds established by the SCAQMD in its CEQA Air Quality Handbook (SCAQMD, April 1993) are used in this analysis.

Thresholds for Construction Emissions

The following CEQA significance thresholds for construction emissions have been established for the Basin:

- 75 pounds per day or 2.5 tons per quarter of reactive organic compounds (ROC)
- 100 pounds per day or 2.5 tons per quarter of NO_X
- 550 pounds per day or 24.75 tons per quarter of CO
- 150 pounds per day or 6.75 tons per quarter of PM_{10}
- 150 pounds per day or 6.75 tons per quarter of sulfur oxides (SO_X)

Projects in the Basin with construction-related emissions that exceed any of the emission thresholds should be considered to be significant under CEQA.

Thresholds for Operational Emissions

The daily operational emissions "significance" thresholds for the Basin are as follows.

Emission Thresholds for Pollutants with Regional Effects. Projects with operations-related emissions that exceed any of the emission thresholds listed below are considered significant under the SCAQMD guidelines.

- 55 pounds per day of ROC
- 55 pounds per day of NO_X
- 550 pounds per day of CO
- 150 pounds per day of PM_{10}
- 150 pounds per day of SO_X

Local Microscale Concentration Standards. The significance of localized project impacts under CEQA depends on whether ambient CO levels in the vicinity of the project are above or below State and federal CO standards. If ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or federal standard, project emissions are considered significant if they increase one-hour CO concentrations by 1.0 part per million (ppm) or more or eight-hour CO concentrations by 0.45 ppm or more. The following are applicable local emission concentration standards for CO:

- California State one-hour CO standard of 20.0 ppm
- California State eight-hour CO standard of 9.0 ppm

IMPACTS AND MITIGATION

The project site has been graded, and the office structure currently exists on the project site. No grading, excavation, or building erection would occur to implement the proposed project. The following discusses potential long-term air quality impacts from the proposed project.

Long-Term Regional Air Quality Impacts

Long-term air emission impacts are those associated with stationary and mobile sources related to any changes to the proposed project. The proposed project would place a recycling center for concrete and asphalt demolition materials on the new project site. For use of the subject property as a recycling center, concrete and asphalt demolition materials will be imported to the site at 20 to 40 truck trips per day. Concrete and asphalt demolition materials are normally composed of broken pieces of concrete or asphalt materials. The sizes of the broken pieces range from a few inches to about three feet in diameter. This material will be stockpiled over an 8-to-12-week period until approximately 5,000 to 8,000 cubic yards of materials are available for processing. A portable processing plant is

then brought to the site to crush, screen, and stockpile the processed products. The crushed product is then suitable for use as CMB or Class 2 Base product. The final products are sold to a variety of local end users, including the City of Long Beach.

Equipment used for the recycling operations include the existing office and truck scale, two front-end loaders (Cat 966 or equivalent), and periodic use of a portable processing plant. The portable processing plant consists of a portable rock crusher, aggregate screen, and material stacker. Although the portable processing plant would be operating on site only periodically, emissions associated with the processing plant are assumed to occur on a daily basis for a worst-case scenario analysis. The portable processing plant is equipped with dust control equipment to meet air quality permit requirements.

On-Site Operations. Based on the current and projected operations, equipment required on site would include two front end loaders working 8 hours per day, one piece of rock crushing equipment working 8 hours a day, haul trucks making a total of 80 trips per day traveling 30 miles each way, and one water truck traveling 15 miles on site per day, as shown in Table E. Long-term on-site operational emissions associated with the proposed project, calculated with the EPA AP-42 emission factors for the heavy-duty equipment, are shown in Table E. Although these emissions have been generated at the current (old) site, they would be considered new emissions at the new project site. Table E shows that emissions at the new project site would be below the SCAQMD daily emission thresholds. Emissions at the new project site would not result in any air quality impact on Burroughs Elementary School, which is 750 feet from the project site.

Off-Site Transport. Based on the *Traffic Impact Analysis* prepared for this project (LSA, September 2004), implementation of the proposed project would also generate 10 passenger car trips that include up to five office staff and machine operators, and 10 delivery/service trips that include a water truck (on site all day), lunch services, postal service, and other deliveries. These trips would be similar to those that traveled to the existing Hanson site located near the intersection of California Avenue and East Spring Street. Because these project trips contribute a small percentage to the current vehicular trips on Walnut Avenue and adjacent streets, there would be very little change in the traffic turn volumes associated with the implementation of the project at intersections along street segments in the project vicinity. Traffic trips along California Avenue and East Spring Street would potentially decrease as a result of the proposed project.

Because the future off-site transport operations and associated emissions would be similar to those generated by the current operations, the difference in vehicle miles traveled (VMT) by the haul trucks and service/delivery vehicles would be minimal and would not result in any measurable changes. Table F shows that, using the ARB's EMFAC 2002 emission factors for passenger cars and EPA AP-42 emission factors for delivery trucks, emissions associated with off-site transport would be identical to the current conditions. Therefore, the project-related long-term air quality impacts would be less than significant. No mitigation measures are required.

Table E: Emissions from On-Site Operations

Source	Hours or Miles per Day	Pollutants (lbs/day)				
		CO	ROC	NO_X	SO_X	PM_{10}
On-Site Operations						
2 Wheeled Loaders	8 hours	9.2	3.7	30.4	2.9	2.7
1 Rock Crusher	8 hours	5.4	1.2	13.6	1.144	1.12
1 Water Truck	15 miles	0.29	0.033	0.41	0.004	0.010
Total On-Site Project Operations		**15**	**5**	**44**	**5**	**4**
SCAQMD Threshold		**550**	**55**	**55**	**150**	**150**
Exceed Threshold ?		**No**	**No**	**No**	**No**	**No**

Source: LSA Associates, Inc., November 2004.

Table F: Emissions from Off-Site Transport

Source	Hours or Miles per Day	Pollutants (lbs/day)				
		CO	ROC	NO_X	SO_X	PM_{10}
Off-Site Transport						
80 Haul Truck Trips	30 miles each	46.7	5.2	66.7	0.7	1.7
9 Delivery/Service Vehicles	40 miles each	7.0	0.79	9.8	0.096	0.24
10 Worker Trips	40 miles each	4.4	0.21	0.5	0.003	0.008
Total Off-Site Transport		**58**	**6**	**77**	**1**	**2**
Net Change in Project Off-Site Transport		**0**	**0**	**0**	**0**	**0**
SCAQMD Threshold		**550**	**55**	**55**	**150**	**150**
Exceed Threshold ?		**No**	**No**	**No**	**No**	**No**

Source: LSA Associates, Inc., November 2004.

Long-Term Microscale (CO Hot Spot) Analysis

Vehicular trips associated with the proposed project would contribute to the congestion at intersections and along roadway segments in the project vicinity. Localized air quality effects would occur when emissions from vehicular traffic increase in local areas as a result of the proposed project. The primary mobile source pollutant of local concern is CO, which is a direct function of vehicle idling time and, thus, traffic flow conditions. CO transport is extremely limited; it disperses rapidly with distance from the source under normal meteorological conditions. However, under certain extreme meteorological conditions, CO concentrations proximate to a congested roadway or intersection may reach unhealthful levels affecting local sensitive receptors (residents, school children, the elderly, hospital patients, etc). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with extremely high traffic

volumes. In areas with high ambient background CO concentration, modeling is recommended to determine a project's effect on local CO levels.

An assessment of project related impacts on localized ambient air quality requires that future ambient air quality levels be projected. Existing CO concentrations in the immediate project vicinity are not available. Ambient CO levels monitored at the North Long Beach station, the closest station with monitored CO data, showed a highest recorded one hour concentration of 9.7 ppm (State standard is 20 ppm) and a highest eight hour concentration of 5.7 ppm (State standard is 9 ppm) during the past five years (see Table D).

The highest CO concentrations would occur during peak traffic hours; hence, CO impacts calculated under peak traffic conditions represent a worst case analysis. Based on the *Traffic Impact Analysis* (LSA, September 2004), CO hot spot analyses were conducted for existing with and without project conditions. The impact on local carbon monoxide levels was assessed with the ARB approved CALINE4 air quality model, which allows microscale CO concentrations to be estimated along roadway corridors or near intersections. This model is designed to identify localized concentrations of carbon monoxide, often termed "hot spots." A brief discussion of input to the CALINE4 model follows. The analysis was performed for the worst case wind angle and wind speed condition and is based upon the following assumptions:

- Selected modeling locations represent the intersections closest to the project site, with the highest project related vehicle turning movements and the worst level of service deterioration;
- Twenty receptor locations with the possibility of extended outdoor exposure from 14 (approximately 46 feet) to 21 meters (approximately 69 feet) of the roadway centerline near intersections were modeled to determine carbon monoxide concentrations;
- The calculations assume a meteorological condition of almost no wind (0.5 meter/ second), a suburban topographical condition between the source and receptor, and a mixing height of 1,000 meters, representing a worst case scenario for CO concentrations;
- CO concentrations are calculated for the one hour averaging period and then compared to the one hour standards. CO eight hour averages are extrapolated using techniques outlined in the SCAQMD CEQA Air Quality Handbook, October 1993, and compared to the eight hour standards; a persistence factor of 0.7 was used to predict the eight hour concentration in an attainment area;
- Concentrations are given in ppm at each of the receptor locations;
- The "at-grade" link option with speed adjusted based on average cruise speed and number of vehicles per lane per hour was used rather than the "intersection" link selection in the CALINE4 model (Department has suggested that the "intersection" link should not be used due to an inappropriate algorithm based on outdated vehicle distribution). Emission factors from the EMFAC2002 model for all vehicles based on the adjusted speed for the year 2004 was used for the vehicle fleet; and
- The highest level of the second highest 1-hour and 8-hour CO concentrations monitored at the North Long Beach station in the past three years were used as background concentrations; 5.9 ppm for the one hour CO and 4.6 ppm for the eight hour CO. The "background" concentrations are then added to the model results for future with and without the proposed project conditions.

The proposed project would contribute to increased CO concentrations at intersections in the project vicinity. As shown in Table G, under the existing conditions, all ten intersections analyzed would have the one-hour and eight-hour CO concentrations below the federal and State standards. The existing CO concentrations are from current traffic in the vicinity of these intersections. The proposed project would contribute at most a 0.1 ppm increase to the one-hour and eight-hour CO concentrations at these intersections. The proposed project would not have a significant impact on local air quality for CO, and no mitigation measures would be required.

Table G: Existing CO Concentrations[3]

Intersection	Receptor to Road Centerline Distance (Meters)	Project Related Increase 1-hr/8-hr (ppm)	Without/With Project One-Hour CO Concentration (ppm)	Without/With Project Eight-Hour CO Concentration (ppm)	Exceeds State Standards	
					1-Hr	8-Hr
Orange Avenue and Spring Street	14/14	0.0/0.0	7.1/7.1	5.4/5.4	No	No
	14/14	0.0/0.0	7.1/7.1	5.4/5.4	No	No
	14/14	0.0/0.0	7.1/7.1	5.4/5.4	No	No
	14/14	0.0/0.0	7.0/7.0	5.4/5.4	No	No
Walnut Avenue and Spring Street.	14/14	0.0/0.0	6.9/6.9	5.3/5.3	No	No
	14/14	0.1/0.1	6.8/6.9	5.2/5.3	No	No
	14/14	0.0/0.0	6.8/6.8	5.2/5.2	No	No
	14/14	0.0/0.0	6.8/6.8	5.2/5.2	No	No
Cherry Avenue and Spring Street	21/21	0.0/0.0	8.6/8.6	6.5/6.5	No	No
	21/21	0.0/0.0	8.4/8.4	6.4/6.4	No	No
	20/20	0.0/0.0	8.2/8.2	6.2/6.2	No	No
	16/16	0.0/0.0	8.2/8.2	6.2/6.2	No	No

Source: LSA Associates, Inc., September 2004.

AIR QUALITY MANAGEMENT PLAN CONSISTENCY

A consistency determination plays an essential role in local agency project review by linking local planning and unique individual projects to the air quality plans. It fulfills the CEQA goal of fully informing local agency decision makers of the environmental costs of the project under consideration at a stage early enough to ensure that air quality concerns are addressed. Only new or amended General Plan elements, Specific Plans, and significantly unique projects need to undergo a consistency review due to the air quality plans strategy being based on projections from local General Plans.

The proposed project consists of relocating a concrete recycling center from one location to another within a one-mile length; additionally, it is not a growth-inducing project. Because the proposed project area is currently zoned for industrial uses, no change in zoning is required. In addition, the project does not require a General or Specific Plan Amendment and is not unique. Therefore, it is consistent with the local air quality plan.

[3] Includes ambient one-hour concentration of 5.9 ppm and ambient eight-hour concentration of 4.6 ppm. Measured at the 3648 N. Long Beach Boulevard, Long Beach, CA, AQ Station (Los Angeles County).

STANDARD CONDITIONS/MITIGATION MEASURES

Project Operations. The project is not expected to result in any measurable changes in total (vehicular and stationary) daily emissions that would exceed the daily emissions thresholds established by the SCAQMD. No mitigation measures are required.

CUMULATIVE IMPACTS

The project would not result in any measurable increases in long-term operational emissions. The project would contribute cumulatively to local and regional air quality degradation.

Currently, the Basin is in nonattainment for CO, PM_{10}, and O_3. Implementation of the proposed project, in conjunction with other planned developments within the cumulative study area, would contribute to the existing nonattainment status. However, the proposed project would not result in any measurable increase in criteria pollutant emissions. Therefore, the proposed project would not exacerbate nonattainment of air quality standards within the Basin or contribute to adverse cumulative air quality impacts.

REFERENCES

California Air Resources Board web site: http://www.arb.ca.gov.

Caltrans 1988. Air Quality Technical Analysis Notes.

Caltrans 1997. Transportation Project-Level Carbon Monoxide Protocol.

LSA Associates, Inc., September 2004. Long Beach Hanson Aggregates Traffic Analysis.

South Coast Air Quality Management District. CEQA Air Quality Handbook. 1993.

South Coast Air Quality Management District. Air Quality Management Plan. 1997.

Western Regional Climate Center web site, http://www.wrcc.dri.edu.

APPENDIX A

CALINE4 CO HOTSPOTS MODEL PRINTOUTS

NOISE IMPACT ANALYSIS

HANSON AGGREGATES CONCRETE/ASPHALT RECYCLE PLANT

CITY OF LONG BEACH, CALIFORNIA

Submitted to:

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LSA Project No. EVM430

LSA

November 10, 2004

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INTRODUCTION

This noise impact analysis has been prepared to evaluate the potential noise impacts and mitigation measures associated with the proposed concrete and asphalt recycling and crushing operations at a 4.3-acre parcel located at the southeast corner of 32nd Street and Walnut Avenue in the City of Long Beach, California (City). This report is intended to satisfy the City's requirement for a project-specific final noise impact analysis by examining the impacts of the proposed project on noise-sensitive uses in the project area and evaluating the mitigation measures incorporated as part of the project design.

PROJECT DESCRIPTION

Project Location

The proposed project site is located in the City of Long Beach. Comprising 4.3 acres, the proposed project site is owned by Hanson Aggregates (Hanson) and is located at the southeast corner of 32nd Street and Walnut Avenue, north of the Interstate 405 (I-405) Freeway. This site is approximately one mile to the northeast of the existing Han
son site south of the I-405. Figure 1 shows the project location.

Access to the site is gained from Interstate 405 and Cherry Avenue. Truck traffic travels south on Cherry Avenue to Spring Street, west on Spring Street to Walnut Avenue, then north on Walnut Avenue to the site entrance.

Project Site Existing Setting

The parcel is zoned General Industrial and is a portion of the site currently used for Hot Mix Asphalt (HMA) manufacturing and recycling of recycled asphalt products (RAP). This activity is undertaken by Sully-Miller Contracting through a lease from Hanson.

Project Characteristics

In addition to the HMA and RAP processing that occurs at the site, Hanson wishes to utilize a portion of the site for the collection and recycling of concrete and asphalt demolition materials. Figure 2 is a site plan for the proposed project. The site plan identifies the location of HMA/RAP operations and the proposed construction debris recycling operations.

Hanson currently operates a recycling center for concrete and asphalt demolition materials located at the intersection of California Avenue and Spring Street south of the I-405. This site is located on City property. Hanson has been asked by the City of Long Beach to move its current recycling operations from City property to enable the construction of a recreation facility. Hanson would like to utilize the subject property to include concrete recycling and crushing in addition to the current asphalt production.

Figure 1: Project Location Map

Figure 2: Site Plan

Hanson proposes to utilize about half of the subject site as a recycling center for concrete and asphalt demolition materials. These activities would occur on the western portion of the site. The process of recycling concrete and asphalt demolition materials is similar to the processing requirements for RAP.

For use of the subject property as a recycling center, concrete and asphalt demolition materials will be imported to the site at 20 to 40 truck trips per day. Concrete and asphalt demolition materials are normally composed of broken pieces of concrete or asphalt materials. The sizes of the broken pieces range from a few inches to about three feet in diameter. This material will be stockpiled over an 8-to-12-week period until approximately 5,000 to 8,000 cubic yards of materials are available for processing. A portable processing plant is then brought to the site to crush, screen, and stockpile the processed products. The crushed product is then suitable for use as CMB or Class 2 Base product. The final products are sold to a variety of local end users, including the City of Long Beach.

Equipment used for the recycling operations include the existing office and truck scale, two front end loaders (Cat 966 or equivalent) and periodic use of a portable processing plant. The portable processing plant consists of a portable rock crusher, aggregate screen, and material stacker. The portable processing plant is equipped with dust control equipment to meet air quality permit requirements.

Hanson's recycle operations are very important for the City of Long Beach for a variety of reasons. There are currently only two other concrete and asphalt demolition material recycling facilities operating in the City. As a result, demolition materials originating in the City and surrounding areas will need to be disposed of in a landfill or hauled substantial distances to recycling facilities in other cities.[1]

Relocation of the recycle operations to the Walnut Avenue site will result in essentially the same type of land use that currently occurs at this site. Processing of RAP is no different than the processing of concrete and asphalt products and, where RAP is used for road base, the use is identical.

METHODOLOGY RELATED TO NOISE IMPACT ASSESSMENT

Evaluation of noise impacts associated with a proposed commercial project typically includes the following:

- Determine the short-term construction noise impacts on off-site noise-sensitive uses
- Determine the long-term noise impacts, including vehicular traffic and on-site operations, on off-site noise-sensitive uses
- Determine the required mitigation measures to reduce long-term off-site noise impacts from on-site sources

[1] Note: outside the City of Long Beach, the closest recycling facility is located in the City of Carson.

CHARACTERISTICS OF SOUND

Sound is increasing to such disagreeable levels in our environment that it can threaten our quality of life. Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep. To the human ear, sound has two significant characteristics: pitch and loudness. Pitch is generally an annoyance, while loudness can affect our ability to hear. Pitch is the number of complete vibrations or cycles per second of a wave that result in the tone's range from high to low. Loudness is the strength of a sound that describes a noisy or quiet environment and is measured by the amplitude of the sound wave. Loudness is determined by the intensity of the sound waves combined with the reception characteristics of the human ear. Sound intensity refers to how hard the sound wave strikes an object, which in turn produces the sound's effect. This characteristic of sound can be precisely measured with instruments. The analysis of a project defines the noise environment of the project area in terms of sound intensity and its effect on adjacent sensitive land uses.

Measurement of Sound

Sound intensity is measured through the A-weighted scale (i.e., dBA) to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes low and very high frequencies of sound similar to the human ear's de-emphasis of these frequencies. Unlike linear units such as inches or pounds, decibels are measured on a logarithmic scale, representing points on a sharply rising curve. For example, 10 decibels are 10 times more intense than 1 decibel, 20 decibels are 100 times more intense, and 30 decibels are 1,000 times more intense. Thirty decibels represent 1,000 times as much acoustic energy as one decibel. A sound as soft as human breathing is about 10 times greater than 0 decibel. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. A 10-decibel increase in sound level is perceived by the human ear as only a doubling of the loudness of the sound. Ambient sounds generally range from 30 dBA (very quiet) to 100 dBA (very loud).

Sound levels are generated from a source, and their decibel level decreases as the distance from that source increases. Sound dissipates exponentially with distance from the noise source. For a single point source, sound levels decrease approximately six decibels for each doubling of distance from the source. This drop-off rate is appropriate for noise generated by stationary equipment. If noise is produced by a line source such as highway traffic or railroad operations, the sound decreases three decibels for each doubling of distance in a hard site environment. Line source noise in a relatively flat environment with absorptive vegetation decreases four and one-half decibels for each doubling of distance.

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. However, the predominant rating scales for human communities in the State of California are the Equivalent-Continuous sound level (L_{eq}) and Community Noise Equivalent (CNEL) based on A-weighted decibels (dBA). L_{eq} is the total sound energy of time-varying noise over a sample period. CNEL is the time-varying noise over a 24-hour period, with a weighting factor of 5 dBA applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and with a weighting factor of 10 dBA from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). The noise adjustments are added to the noise events occurring during the more sensitive hours. Day-night average noise (L_{dn}) is similar to the

CNEL but without the adjustment for nighttime noise events. CNEL and L_{dn} are normally exchangeable and within 1 dB of each other. Other noise-rating scales of importance when assessing annoyance factor include the maximum noise level, or L_{max}, and percentile noise exceedance levels, or L_N. L_{max} is the highest exponential time-averaged sound level that occurs during a stated time period. It reflects peak operating conditions and addresses the annoying aspects of intermittent noise. L_N is the noise level that is exceeded "N" percent of the time during a specified time period. For example, the L_{10} noise level represents the noise level exceeded 10 percent of the time during a stated period. The L_{50} noise level represents the median noise level. Half the time the noise level exceeds this level and half the time it is less than this level. The L_{90} noise level represents the noise level exceeded 90 percent of the time and is considered the lowest noise level experienced during a monitoring period. It is normally referred to as the background noise level.

Psychological and Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects our entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions and thereby affecting blood pressure, functions of the heart, and the nervous system. In comparison, extended periods of noise exposure above 90 dBA would result in permanent cell damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear even with short-term exposure. This level of noise is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by the feeling of pain in the ear. This is called the threshold of pain. A sound level of 190 dBA will rupture the eardrum and permanently damage the inner ear. The ambient or background noise problem is widespread and generally more concentrated in urban areas than in outlying less developed areas.

Table A lists "Definitions of Acoustical Terms." Table B shows "Common Sound Levels and Their Sources." Table C shows "Land Use Compatibility for Exterior Community Noise" recommended by the California Department of Health, Office of Noise Control.

SETTING

Sensitive Land Uses in the Project Vicinity

Certain land uses are considered more sensitive to noise than others. Examples of these include residential areas, educational facilities, hospitals, childcare facilities, and senior housing. The surrounding land uses adjacent to the project site are industrial. A business park exists southwest of Walnut Avenue and East 33rd Street. The closest off-site sensitive land use to the project site is the residential area to the northwest, on the northwest corner of Walnut Avenue and 33rd Street, at a distance of approximately 650 ft from the project boundary. Burroughs Elementary School is located along 33rd Street and approximately 750 feet from the project site.

Overview of the Existing Noise Environment

The primary existing noise sources in the project area are transportation facilities. Traffic on Interstate 405 (I-405), Cherry Avenue, and Orange Avenue is the dominant source contributing to area ambient

Table A: Definitions of Acoustical Terms

Term	Definitions
Decibel, dB	A unit of level that denotes the ratio between two quantities that are proportional to power; the number of decibels is 10 times the logarithm (to the base 10) of this ratio.
Frequency, Hz	Of a function periodic in time, the number of times that the quantity repeats itself in one second (i.e., number of cycles per second).
A-Weighted Sound Level, dBA	The sound level obtained by use of A-weighting. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. All sound levels in this report are A-weighted, unless reported otherwise.
L_{01}, L_{10}, L_{50}, L_{90}	The fast A-weighted noise levels that are equaled or exceeded by a fluctuating sound level 1 percent, 10 percent, 50 percent, and 90 percent of a stated time period.
Equivalent Continuous Noise Level, L_{eq}	The level of a steady sound that, in a stated time period and at a stated location, has the same A-weighted sound energy as the time-varying sound.
Community Noise Equivalent Level, CNEL	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 5 dBA to sound levels occurring in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of 10 dBA to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
Day/Night Noise Level, L_{dn}	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 10 dBA to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
L_{max}, L_{min}	The maximum and minimum A-weighted sound levels measured on a sound level meter, during a designated time interval, using fast time averaging.
Ambient Noise Level	The all encompassing noise associated with a given environment at a specified time, usually a composite of sound from many sources at many directions, near and far; no particular sound is dominant.
Intrusive	The noise that intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Source: Handbook of Acoustical Measurements and Noise Control, 1991.

Table B: Common Sound Levels and Their Sources

Noise Source	A-Weighted Sound Level in Decibels	Noise Environment	Subjective Evaluation
Near Jet Engine	140	Deafening	128 times as loud
Civil Defense Siren	130	Threshold of Pain	64 times as loud
Hard Rock Band	120	Threshold of Feeling	32 times as loud
Accelerating Motorcycle at a Few Feet Away	110	Very Loud	16 times as loud
Pile Driver; Noisy Urban Street/Heavy City Traffic	100	Very Loud	8 times as loud
Ambulance Siren; Food Blender	95	Very Loud	
Garbage Disposal	90	Very Loud	4 times as loud
Freight Cars; Living Room Music	85	Loud	
Pneumatic Drill; Vacuum Cleaner	80	Loud	2 times as loud
Busy Restaurant	75	Moderately Loud	
Near Freeway Auto Traffic	70	Moderately Loud	Baseline
Average Office	60	Quiet	One-half as loud
Suburban Street	55	Quiet	
Light Traffic; Soft Radio Music in Apartment	50	Quiet	One-quarter as loud
Large Transformer	45	Quiet	
Average Residence without Stereo Playing	40	Faint	One-eighth as loud
Soft Whisper	30	Faint	
Rustling Leaves	20	Very Faint	
Human Breathing	10	Very Faint	Threshold of Hearing
	0	Very Faint	

Source: Compiled by LSA Associates, Inc., 1998.

Table C: Land Use Compatibility for Exterior Community Noise

Land Use Category	Noise Range (Ldn or CNEL), dB			
	I	II	III	IV
Passively-used open spaces	50	50–55	55–70	70+
Auditoriums, concert halls, amphitheaters	45–50	50–65	65–70	70+
Residential: low-density single-family, duplex, mobile homes	50–55	55–70	70–75	75+
Residential: multifamily	50–60	60–70	70–75	75+
Transient lodging: motels, hotels	50–60	60–70	70–80	80+
Schools, libraries, churches, hospitals, nursing homes	50–60	60–70	70–80	80+
Actively used open spaces: playgrounds, neighborhood parks	50–67	—	67–73	73+
Golf courses, riding stables, water recreation, cemeteries	50–70	—	70–80	80+
Office buildings, business commercial and professional	50–67	67–75	75+	—
Industrial, manufacturing, utilities, agriculture	50–70	70–75	75+	—

Noise Range I—Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Noise Range II—Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.

Noise Range III—Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Noise Range IV—Clearly Unacceptable: New construction or development should generally not be undertaken.

Source: Office of Noise Control, California Department of Health 1976.

noise levels in the project vicinity. Noise from motor vehicles is generated by engine vibrations, the interaction between the tires and the road, and the exhaust system. Long Beach Municipal Airport is located less than one mile to the east of the project site. Aircraft operations associated with this airport also contributed to the ambient noise in the project area. Noise levels on and in the vicinity of the project site will not change substantially as a result of the proposed project.

Sample Noise Monitoring Results

Because the existing operations have ended at the current site, a noise survey was conducted by LSA Associates, Inc. (LSA) at a facility with similar operations along Foster Road east of Carmenita Road in Santa Fe Springs on September 1, 2004. Noise measurements were taken for 10 minutes at each site. Three measurements at representative locations approximately 50 feet from the rock crusher were taken to document potential source noise levels at the proposed project site.

Table D summarizes the noise measurement data from the three monitoring locations. As shown, the noise levels range from 79.4 to 86.8 dBA L_{max} at 50 feet from the rock crusher, and the L_{eq} noise levels measured at 50 feet from the rock crusher range from 73.5 to 79.4 dBA.

During the source noise measurement, a front-end loader dumping material into the rock crusher, brake screeching, and picking up material from the pile generated 73 to 86.8 dBA L_{max} noise levels.

THRESHOLDS OF SIGNIFICANCE

A project will normally have a significant effect on the environment related to noise if it will substantially increase the ambient noise levels for adjoining areas or conflict with adopted environmental plans and goals of the community in which it is located. The applicable noise standards governing the project site are the criteria in the City's Noise Element of the General Plan and Municipal Code.

City of Long Beach Noise Standards

Noise Element of the General Plan. The Noise Element of the General Plan contains noise standards for mobile noise sources. These standards address the impacts of noise from adjacent roadways and airports. The City specifies outdoor and indoor noise limits for residential uses, places of worship, educational facilities, hospitals, hotels/motels, and commercial and other land uses. The noise standard for exterior living areas is 65 dBA CNEL. The indoor noise standard is 45 dBA CNEL, which is consistent with the standard in the California Noise Insulation Standard.

Municipal Code. The City has adopted a quantitative Noise Control Ordinance, No. C-5371, Long Beach 1978 (Municipal Code, Chapter 8.80). The ordinance establishes maximum permissible hourly noise levels (L_{50}) for different districts throughout the City. Tables E and F list exterior noise and interior noise limits for various land uses.

Table D: Santa Fe Springs Source Noise Monitoring Results

Site	Location	Start Time	Duration (minutes)	L_{eq}	L_{max}	L_{min}	L_2	L_8	L_{25}	L_{50}	Noise Sources
1	Approximately 50 feet east of the rock crusher	8:17 am	10	79.4	86.8	76.6	81.9	80.6	79.7	79.2	Generator, rock crusher, dozer dumping materials into the rock crusher, truck reverse signal, brake screeching
2	Approximately 50 feet west of the rock crusher	8:33 am	10	75.5	79.4	73.5	77.2	76.4	75.7	75.3	Generator, rock crusher, dozer dumping materials into the rock crusher, truck reverse signal, brake screeching
3	Approximately 50 feet south of the rock crusher	8:47 am	10	73.5	79.4	70.2	76.6	75.3	74.0	73.1	Generator, rock crusher, dozer dumping materials into the rock crusher, truck reverse signal, brake screeching

Source: LSA Associates, Inc., September 2004.

Table E: Exterior Noise Limits, L_N (dBA)

Receiving Land Use	Time Period	L_{50}	L_{25}	L_8	L_2	L_{max}
Residential (District One)	Night: 10:00 p.m.–7:00 a.m.	45	50	55	60	65
	Day: 7:00 a.m.–10:00 p.m.	50	55	60	65	70
Commercial (District Two)	Night: 10:00 p.m.–7:00 a.m.	55	60	65	70	75
	Day: 7:00 a.m.–10:00 p.m.	60	65	70	75	80
Industrial (District Three)	Anytime*	65	70	75	80	85

* For use at boundaries rather than for noise control within industrial districts.
Source: City of Long Beach Municipal Code

Table F: Maximum Interior Sound Levels, L_N (dBA)

Receiving Land Use	Time Interval	L_8	L_2	L_{max}
Residential	10:00 p.m.–7:00 a.m.	35	40	45
	7:00 a.m.–10:00 p.m.	45	50	55
School	7:00 a.m.–10:00 p.m. (while school is in session)	45	50	55
Hospital and other noise-sensitive zones	Anytime	40	45	50

Source: City of Long Beach Municipal Code

The City's Noise Control Ordinance also governs the time of day that construction work can be performed. The Noise Ordinance prohibits construction, drilling, repair, alteration, or demolition work between the hours of 10:00 p.m. and 7:00 a.m. on weekdays or at any time on weekends or federal holidays if the noise would create a disturbance across a residential or commercial property line or violate the quantitative provisions of the ordinance.

IMPACTS AND MITIGATION MEASURES

The project site has already been graded and the office structure currently exists on the project site. No grading, excavation, or building erection would occur to implement the proposed project. Implementation of the proposed project would result in long-term traffic and stationary noise impacts. Noise generated by on-site activities may impact neighboring sensitive uses. The following discussion focuses on the increase in noise associated with the operation of the proposed project and the traffic in the project area.

Off-Site Traffic Impact

The proposed project would generate 100 gross daily trips, or 180 passenger car equivalent (PCE) trips (LSA, September 2004). Peak hour trips would be 27 gross trips (51 PCE trips) in the morning and none in the afternoon. These trips would be the same as those that went to the existing Hanson site located near the intersection of California Avenue and East Spring Street. Because these project trips contribute to a small percentage to the current vehicular trips on Walnut Avenue and adjacent

streets, there would be very little change in the traffic noise levels associated with project implementation along street segments in the project vicinity. Traffic noise along California Avenue and East Spring Street would potentially decrease as a result of the proposed project. As changes in noise level of three dBA or less are not perceptible to the human ear in an outdoor environment, the noise level changes would be considered less than significant. No mitigation measures are required.

Airport Noise Impact

The Long Beach Municipal Airport is located less than one mile east of the project site. Based on the aircraft noise contours produced by the airport, the project site does not lie within the 60 dBA CNEL contour of the airport. In addition, the proposed project is not considered noise-sensitive. Therefore, airport noise impacts would be small.

On-Site Stationary Sources Noise Impact

The proposed project would place a recycling center for concrete and asphalt demolition materials on site. For use of the subject property as a recycling center, concrete and asphalt demolition materials will be imported to the site at 20 to 40 truck trips per day. Equipment used for the recycling operations include the existing office and truck scale, two front end loaders (Cat 966 or equivalent), and periodic use of a portable processing plant. The portable processing plant consists of a portable rock crusher, aggregate screen, and material stacker.

As stated in the source noise level measurement discussion, the noise levels range from 79.4 to 86.8 dBA L_{max} and the L_{eq} noise level ranges from 73.5 to 79.4 dBA measured at 50 feet from the rock crusher and the front-end loader. During the source noise measurement, front-end loaders dumping material into the rock crusher, brake screeching, and picking up material from the pile generated 73 to 86.8 dBA L_{max} noise levels. Loading and unloading activities associated with concrete delivery trucks generate approximately 78 to 85 dBA L_{max} at a distance of 50 feet. This range of truck noise is similar to, but slightly lower than, the loading/unloading noise from the front-end loaders and rock crushing operations.

The closest distance from the proposed operations to the residences northwest of Walnut Avenue and 33rd Street is approximately 650 feet. The noise attenuation of rock crushing and front-end loader activities, provided by distance divergence at 650 feet, is approximately 22 dBA compared to the level at 50 feet. Burroughs Elementary School is located approximately 750 feet from the project site and would receive 24 dBA from distance attenuation. In addition, the operations would be blocked by the intervening structures between the site and the nearest residences and Burroughs Elementary School, which would provide a minimum of 5 dBA in noise attenuation for areas to the northwest. Therefore, residences to the northwest of the project site would be exposed to on-site rock crushing noise levels of up to 60 dBA L_{max} or 52 dBA L_{eq}. Burroughs Elementary School would be exposed to on-site rock crushing noise levels up to 58 dBA L_{max} or 50 dBA $L_{eq.}$ This noise level range is expected to be lower than traffic noise on Walnut Avenue and 33rd Street and aircraft noise from Long Beach Airport. In addition, this noise level range is lower than the daytime 70 dBA L_{max} (7:00 a.m. to 10:00 p.m.) and nighttime 65 dBA L_{max} (10:00 p.m. to 7:00 a.m.) maximum noise standards established by the City. Therefore, no mitigation is required for on-site operations.

Mitigation Measures

On-Site and Off-Site Traffic Noise. No mitigation measures are required.

On-Site Operations Noise. No mitigation measures are required.

Level of Significance after Mitigation

No significant noise impacts from long-term operation of the project site would occur.

CUMULATIVE IMPACTS

On-site operations are point sources of noise and would not contribute to off-site cumulative noise impacts from other planned and future projects. Project-related traffic would contribute to cumulative traffic noise impacts in the vicinity of the project site, but sound levels will not increase by more than 3 dBA from their corresponding existing levels. This would be considered an insignificant impact.

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INTRODUCTION

LSA Associates, Inc. (LSA) has prepared this traffic/circulation analysis to evaluate the potential impacts to existing roadways and intersections associated with the development and use of the proposed Hanson Aggregates Concrete and Asphalt Recycling and Crushing Operation located at 1630-1660 East 32nd Street in the City of Long Beach (City). The proposed project contemplates the relocation of these facilities from a site at the corner of California Avenue/Spring Street to the new site. The California Avenue/Spring Street site was operational, generating truck traffic, up to two months ago. The previous site is planned as parkland by the City of Long Beach. The new site is vacant and will provide similar services as the previous site.

This study includes a level of service analysis at three proximate intersections with and without the proposed project. Additionally, this study reviews the current General Plan Truck Route map and compares the potential routes of trucks to confirm compliance with the truck routing through Long Beach near the site. If necessary, LSA makes recommendations to enhance or reinforce compliance with the Truck Route map in Long Beach.

PROJECT DESCRIPTION

Hanson Aggregates (Hanson) is planning to develop a 4.3-acre parcel at the southeast corner of 32nd Street and Walnut Avenue in the City of Long Beach to relocate existing materials demolition and recovery operations from approximately one mile away. The project study area is bounded by 32nd Street to the north, Interstate 405 (I-405) to the south, Cherry Avenue to the east, and Walnut Avenue to the west. The project location and study area intersections are illustrated in Figure 1.

The proposed project includes the relocation of the existing operations from City land to the proposed project site. The relocation was requested by the City in order to facilitate the construction of a sports park at that location. The proposed site was used as a Hot Mix Asphalt (HMA) manufacturing and Recycled Asphalt Products (RAP) operation undertaken by Sully-Miller Contracting through a lease from Hanson and is currently vacant.

Hanson proposes to utilize the western region of the project site as a recycling center for concrete and asphalt demolition materials. The eastern half of the project site will be utilized as a HMA and RAP plant. The proposed uses and site plan are illustrated in Figure 2. For use of the proposed site as a recycling center, concrete and asphalt demolition raw materials will be imported to the site at 20 to 40 truck trips per day. Ancillary services/deliveries (such as food service, postal, etc.) are expected to occur at the site on a daily basis.

Access to the site is via Walnut Avenue at a single driveway. Local circulation is provided along Cherry Avenue and Spring Street. Regional circulation is via the I-405 freeway. Per the City of Long Beach Traffic Engineering Department's approved truck routes and the City's General Plan, truck traffic is expected to travel along Cherry Avenue to Spring Street, west on Spring Street to Walnut Avenue, then north on Walnut Avenue to the site entrance.

Figure 1: Project Location and Study Area Intersections

Figure 2: Proposed Uses and Site Plan

EXISTING SETTING

Existing Land Use

The existing facility is located at the southeast corner of California Avenue and Spring Street. The site is bounded by Spring Street to the north, 23rd Street to the south, California Avenue to the west, and Orange Avenue to the east. The existing parcel is zoned Medium Industrial (IM) per the City of Long Beach Zoning Map and is currently used by Hanson as a selling base for crushed rock and aggregate. No recycling operations, hence no truck traffic, are currently present. The site is vacant, but was previously used for recycling operations similar to the proposed site uses. The existing site will be closed permanently at the request of the City to facilitate the construction of a recreational facility (Sports Park). Therefore, Hanson proposes to relocate its operations to 1630–1660 East 32nd Street. The future proposed site is located at the southeast corner of 32nd Street and is currently vacant. This 4.3-acre parcel is zoned General Industrial and its prior uses include HMA manufacturing and the recycling of RAP operations by Sully-Miller Contracting through a lease from Hanson.

Existing Circulation System

The existing circulation system analyzed in this study includes those facilities that could be potentially impacted by project development. These include the major routes to/from the site and the regional circulation system.

The **I-405 Freeway** is a regional freeway with eight mixed flow lanes linking Orange and Los Angeles Counties through the South Bay area. The I-405 has one high occupancy vehicle (HOV) lane in each direction in the vicinity of the proposed project. Freeway ramps are provided at Spring Street, Cherry Avenue, and Orange Avenue near the project site.

Cherry Avenue is a six-lane north-south Major arterial. Cherry Avenue is a regional circulation corridor throughout all of Long Beach.

Spring Street is a six-lane east-west Major arterial near the project site. East Spring Street provides circulation through Long Beach from the Metro Blue Line past the Long Beach Airport.

Orange Avenue is a six-lane north-south Major arterial. From Pacific Coast Highway north past the existing site, Orange Avenue traverses the City.

Walnut Avenue is a four-lane Collector street and provides direct access to adjacent industrial and commercial uses.

The City of Long Beach maintains a Truck Route map in the General Plan Circulation Element. This Truck Route map indicates the facilities that are passable by trucks greater than three tons. Trucks are to use these roadways for travel through the City of Long Beach. Other roadways may be used as direct connections to individual uses and sites from established Truck Routes. Figure 3 presents the current Long Beach Truck Route map. Figure 4 illustrates the Truck Route coverage in relation to the existing and proposed project sites.

Figure 3: Existing Intersection Geometrics

Figure 4: Existing Traffic Volumes

Existing Intersection Level of Service

Southland Car Counters conducted existing peak hour intersection turn movement counts on Thursday, August 26, 2004, at the study area intersections of Orange Avenue/Spring Street, Walnut Avenue/Spring Street, and Cherry Avenue/Spring Street. The counts are provided in Appendix A. Intersection turn-lane configurations are illustrated in Figure 5 for the three study area intersections. All three intersections are signalized with protected left-turn phasing at each approach. Existing peak hour traffic volumes at these three intersections are illustrated in Figure 6.

The ICU methodology was used to determine levels of service (LOS) for the signalized study area intersections, consistent with the City of Long Beach=s requirements. This methodology compares the volume-to-capacity (v/c) ratios of conflicting turn movements at an intersection, sums these critical conflicting v/c ratios for each intersection approach, and determines the overall ICU. The resulting ICU is expressed in terms of LOS, where LOS A represents free-flow activity, and LOS F represents overcapacity operation. LOS is a qualitative assessment of the quantitative effects of such factors as traffic volume, roadway geometrics, speed, delay, and maneuverability on roadway and intersection operations. The LOS criteria for signalized intersections using the ICU methodology are presented below.

LOS	Description
A	No approach phase is fully utilized by traffic, and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.
B	This service level represents stable operation, where an occasional approach phase is fully utilized, and a substantial number are nearing full use. Many drivers begin to feel restricted within platoons of vehicles.
C	This level still represents stable operating conditions. Occasionally, drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.
D	This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is attained no matter how great the demand.
F	This level describes forced flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially, and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, speed can drop to zero.

Figure 5: Truck Route System

Figure 6: Truck Route System Within the Study Area

The relationship between LOS and the ICU value (i.e., v/c ratio) is as follows:

Level of Service	Intersection Capacity Utilization
A	≤ 0.600
B	0.610B0.700
C	0.710B0.800
D	0.810B0.900
E	0.910B1.000
F	> 1.000

Consistent with City of Long Beach requirements, the ICU calculations utilize a lane capacity value of 1,600 vehicles per hour (vph) per lane, and a dual-turn lane capacity of 2,880 vph. Based on City of Long Beach requirements, a clearance adjustment factor (ranging from 0.100 to 0.180) was added to each LOS calculation. The clearance and lost time factors for the different critical phases are summarized below.

Number of Critical Phases	Left-Turn Phasing Type	Clearance and Loss Time Factor
2	Permissive	0.10
3	Protected-Permissive	0.12
3	Fully-Protected	0.15
4	Protected-Permissive	0.14
4	Fully-Protected	0.18

The City of Long Beach considers intersections with a v/c ratio of 0.90 (LOS D) as the upper limit of satisfactory operations. A project impact at an intersection is considered significant if the intersection operates at an unsatisfactory LOS (LOS E or F) and the project increases the ICU by 2 percent or higher (ICU ≥ 0.02), or the project traffic causes the intersection to deteriorate from LOS D to LOS E or F.

Table A presents the existing levels of service at the study area intersections using the Intersection Capacity Utilization (ICU) methodology for signalized intersections. The existing levels of service calculation worksheets are provided in Appendix B.

Table A: Existing Level of Service Summary

	AM		PM	
Intersection	**ICU**	**LOS**	**ICU**	**LOS**
1. Orange Avenue/Spring Street	0.54	A	0.68	B
2. Walnut Avenue/Spring Street	0.43	A	0.69	B
3. Cherry Avenue/Spring Street	0.79	C	0.94	E

As seen in the Table, the intersections of Orange Avenue/Spring Street and Walnut Avenue/Spring Street currently operate with satisfactory levels of service (LOS D or better). The intersection of Cherry Avenue/Spring Street operates at LOS E in the p.m. peak hour.

PROJECT IMPACTS

Project impacts were assessed within the study area by adding project-related traffic to the existing traffic base. Daily and peak hour trips were generated for the proposed project based on the operational schedule provided by the applicant and confirmed based on observations made by LSA at a similar site in Santa Fe Springs. Levels of service were calculated for the resultant Existing plus Project condition and compared with those identified for the Existing Condition. Furthermore, project impacts were based on the project's ability to maintain compliance with the travel restrictions identified in the City of Long Beach Truck Route map.

It should be noted that as recently as Spring 2004, truck traffic associated with the recycling activities was part of the traffic mix in the area from the previous operations located less than one mile away. Since the previous site is closed, reinstatement of the operation will result in all new traffic, which will be similar to the levels of the previous operation. Therefore, the probability of significant circulation impacts is low and equal to the traffic environment prior to the closure of the existing facility.

Project Trip Generation

Daily and a.m. and p.m. peak hour trips have been generated for the proposed facility based on an operational schedule provided by the applicant. LSA sought to collect real traffic data at the existing site; however, it is closed. Instead, LSA made observations at a similar site managed by Hanson in Santa Fe Springs. The Santa Fe Springs site is located at 13539A East Foster Road and provides the same services of crushing, aggregate mixing, and loading as those proposed for the Long Beach site.

Table B illustrates the proposed project trip generation estimation. A total of 40 five-axle trucks are proposed as the maximum service at the proposed site. This maximum service is generally similar to that observed at Santa Fe Springs. Based on the service rates observed at the Santa Fe Springs site, each truck enters the site, stops at the scale/lift, is filled, and departs the site in a five-minute period. The service rate for each truck is five minutes.

The applicant has indicated that the average number of employees is two per day. However, the Santa Fe Springs site appeared to have as many as five employees on-site. The Santa Fe Springs site

Table B: Trip Generation Summary

opened at 7:00 a.m., prior to the morning peak commute hour. For purposes of this analysis, 75 percent of the employees arrive to open the proposed facility. The remaining 25 percent arrive during the morning peak commute hour. Up to five service and delivery vehicles are considered on site throughout the day. These include a water truck, lunch service, postal service, and other possible deliveries.

Based on this operational schedule, 100 daily vehicle trips are estimated for the site, with 27 occurring in the a.m. peak hour. The inclusion of heavy trucks in the traffic flow can adversely affect general traffic conditions. Each heavy truck operates like multiple vehicles (i.e., slower turning, acceleration, and general travel speeds). For purposes of this analysis, each truck is considered as two passenger-car equivalents (PCE), consistent with the Highway Capacity Manual direction for heavy vehicles on flat terrain. The effective trip generation of the site, then, is 180 PCEs per day, with 51 PCEs occurring in the a.m. peak hour.

Project Trip Distribution and Assignment

Trip distribution for the proposed project was based on logical travel corridors and minimum time paths. Project traffic volumes for vehicles both entering and exiting the project site were distributed and assigned to the adjacent street system based on the proximity to regional routes (i.e., I-405, major arterials, and truck routes (i.e., Cherry Avenue and Spring Street in the surrounding area).

As illustrated in Figure 7, approximately 40 percent of the trips are destined northwest via the I-405, 40 percent southeast via the I-405, and 10 percent each north and south along Cherry Avenue.

The project traffic volumes were assigned to the adjacent street system based on the trip distribution percentages and net trip generation. The resulting project trip assignment is also illustrated in Figure 7.

Existing Plus Project Levels Of Service

To determine existing plus project conditions, traffic generated by the proposed project is added to existing traffic volumes at the study area intersections. Figure 8 shows the resulting existing plus project a.m. and p.m. peak-hour traffic volumes at the study area intersections.

Table C summarizes the results of the existing plus project a.m. and p.m. peak-hour LOS analysis for the two signalized study area intersections.

Table C: Existing Plus Project Level of Service Summary

	AM		PM	
Intersection	**ICU**	**LOS**	**ICU**	**LOS**
1. Orange Avenue/Spring Street	0.54	A	0.68	B
2. Walnut Avenue/Spring Street	0.45	A	0.69	B
3. Cherry Avenue/Spring Street	0.80	C	0.94	E

As this table indicates, the intersections of Orange Avenue/Spring Street and Walnut Avenue/Spring Street will continue to operate with satisfactory levels of service (LOS D or better) with

Figure 7: Project Trip Distribution and Assignment

Figure 8: Existing Plus Project Traffic Volumes

project-related traffic (expressed as PCEs). The intersection of Cherry Avenue/Spring Street will continue to operate at LOS E in the p.m. peak hour with project implementation, but the ICU value will not change from 0.94. The project does not add measurable traffic to this intersection as defined by the City's thresholds.

The implementation of the proposed Hanson facility will not create or exacerbate a level of service impact at local intersections in Long Beach. No capital circulation improvements are required to offset a project impact.

Truck Route Conformity

The proposed project is within one-half block of an identified truck route in the City of Long Beach at Spring Street. The travel route from the site to Spring Street is along Walnut Avenue. Walnut Avenue is an industrial collector fronted by warehouse and manufacturing uses on the east and open lot sales (i.e., pipe and tool sales) to the west. Heavy trucks have used this route previously as part of the previous use of the project site. Sensitive receptors, such as residential dwellings, do not appear to exist on Walnut Avenue along the Hansen Aggregates travel route. On Walnut Avenue, truck restriction signs are present ("No Trucks over 3 Tons" under the speed limit signs). It appears these signs are intended to restrict trucks to the neighborhood to the north of Wardlow. If the project is allowed to proceed, these signs should be removed and relocated to a more appropriate location to address neighborhood traffic concerns. Trucks have and will continue to use Walnut Avenue to arrive at and depart from the site.

From Spring Street, project-related traffic can move to/from the I-405 freeway for regional travel along other truck routes, or move in any direction unhindered along the network of truck routes. From the regional travel perspective, signing is provided at the Spring Street/I-405 ramp intersections, indicating the presence of established truck routes. Likewise, truck route signage appears adequate along the City routes of Spring Street, Cherry Avenue, and Willow Street. No additional signage is recommended to reinforce the established truck routes in the vicinity of the proposed Hanson facility.

APPENDIX A

EXISTING TRAFFIC COUNTS

APPENDIX B

EXISTING ICU/LOS WORKSHEETS